AN INVESTIGATION OF SCHOOL ALIENATION AND RELATED FACTORS IN FOURTH FORM STUDENTS

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ABSTRACT

The purpose of this study was to identify the nature, and determine the relationship, of certain factors thought to be associated with school alienation. After completion of several pilot studies concerned with developing valid and reliable instruments, a representative sample of fifteen Canterbury secondary schools was selected and 674 fourth form students from those schools responded to a questionnaire measuring school alienation, perceived school bureaucratization, perceived conflict of values, and achievement motivation.

Results indicated that school alienation is comprised of five dimensions which can be subsumed under a single factor. Perceived school bureaucratization consists of six dimensions which may be subsumed under two factors: Bureaucratic Organisation and Development of Expertise. The first of these factors contributed 20.63% to the variance of school alienation and was positively related to that variable, while the second contributed 5.48% to variance and was negatively related to the criterion. Perceived conflict of values consists of five dimensions which may be subsumed under the two factors of Conflict over Present-oriented School Values and Conflict over Future-oriented School Values. Both factors were significantly and positively related to school alienation, with the former contributing 1.11% to variance, and the latter 1.23%. Achievement motivation was not significantly related to school alienation. In all, 44.53% of the total variance of school alienation was explained, of which 28.45% was contributed by the experimental variables, and 16.08% by the controls.

It was concluded that student dissatisfaction with school apparently focuses on the perceived bureaucratic organisation of the school, and on

perceived student-school conflict over values which the student has about school and the extent to which the school puts those values into effect. Of particular interest was the implication that school has 'intrinsic' meaning for students; furthermore, school experience seems to be interpreted by students as being an inevitable part of life which has important implications for future status.

CHAPTER I

INTRODUCTION

I. CONTEXT OF THE RESEARCH

Currently there is a growing concern in many countries with regard to the nature, objectives, and outcomes of secondary education. Various writers have succeeded in exposing the weaknesses and anomalies of 'traditional' secondary education - perhaps the most intense criticism has come from the "deschoolers" who hold little hope for the secondary school system as it is currently conceived and organised. However it would be inaccurate to claim that this concern is only of recent origin - rather, it is that it is being voiced and heard more clearly than ever before. Consider, for instance, Holt's (1973) vivid account of the ways in which many students inevitably fail in the school situation, and the role that the school itself plays in engendering such failure. More recently Chanan and Gilchrist (1974) have also questioned the efficacy of the school institution, although they attribute much of its inadequacy and 'turmoil' to the fact that society is changing rapidly, and this social change is reflected in the often contradictory demands made of the school. Likewise the American secondary school is currently the focus of much argument and debate. Criticism is levelled at the structure of the school, the curriculum, the fact that the secondary school largely isolates adolescents from the outside world, the seemingly increasing inability of the school to cater for the needs of the individual student, and so forth. Perhaps some indication of the extent of this critical analysis of the school is conveyed by the fact that the National Society for the Study of

Education devoted the 1976 Yearbook to an insightful examination of the issues that are presently confronting the American secondary school.

However the desire for reform in secondary education is not confined to countries such as Britain and America - for the last decade, in particular, has witnessed a rapidly growing concern with regard to the structure and quality of secondary education in New Zealand. Shallcrass (in Bates, 1970, p.120), for instance, has commented that '... New Zealand secondary schools are in serious and increasing disarray'. The growing dissatisfaction with the New Zealand secondary school has become a matter not only of local but also of national concern - this is reflected in the fact that various committees and working parties have been established in recent years, and have been allocated the task of establishing guidelines with regard to the objectives, curriculum, organisation, and potential areas of reform in the secondary school (see, for instance, the various reports issuing from the 1973-4 Educational Development Conference, the Report of the Committee on Secondary Education (1976), and so on).

Coupled with this concern is a growing awareness of the fact that many New Zealand secondary students are becoming increasingly dissatisfied with school, and are frequently bored or 'turned off' by the educational programmes offered to them. The charge is often made that secondary education is not really meaningful, motivating, or even interesting, for an increasing number of its consumers. 'The experience does not enhance either their self-confidence or their self-respect. Their personal development and their capacity to become good citizens have been stunted. The anti-social behaviour with which some react at school is also harmful to the development of their fellow students' (Report of the Advisory Council on Educational Planning, 1974, p.14). In addition, one is constantly reminded of the 'underachievement' problem, increasing truancy on the part of secondary school students, and the inevitable generalisation

(often evident in the media) that this type of situation is an antecedent condition for wider 'social' problems such as juvenile delinquency, and the misuse of drugs and alcohol (see, for example, articles such as those in the Christchurch Star (17/8/75; 2/10/76) and in the Press (9/7/75), to mention but a few).

It is often argued that such problems as these are basically 'social' problems and should therefore be remedied at that level; however, if one takes into consideration the intimate relationship between the education system and society, and between the adolescent's experiences at school and his subsequent functioning as an effective, productive member of society, then it becomes obvious that the school must take responsibility for those problems that stem from the nature of an individual's experience in the education system. This immediately gives rise to questions such as 'What is it about the secondary school that 'turns students off?' 'Why is school an unfulfilling, dissatisfying, and unproductive experience for many students?'

Some suggestion of a possible answer to these and related questions was apparent in the recent report of the working party on Aims and Objectives (1974). In this report mention was made of the fact that people are becoming *'alienated'* from the education system as it currently exists and operates. This theme was taken up in Codd's recent comment that: 'As schools grow in size and increase in complexity they are more prone to transformation into depersonalizing, alienating institutions' (in Codd and Hermansson, 1976, p.346).

Perhaps in this concept of 'alienation' lies the key to an understanding of the causes and consequences of many of the problems that currently beleaguer the New Zealand secondary school system. Indeed the Report on Educational Aims and Objectives (1974, p.29-30) cited many factors which could cause this alienation - for example, the authoritarian

nature of many institutions, students' lack of enjoyment of school, the constant emphasis on teaching facts with little consideration of their relevance to adolescents in this contemporary world, the impersonal nature of large schools, the lack of response to the 'out-of-school' influences on learning and performance, the tendency to label students in terms of their ability and behaviour, and so on. The import of the 'alienation' problem that potentially besets secondary school students was further highlighted by the findings of overseas studies - for example, with regard to the relationships between alienation and learning, achievement, absence from school, and so forth. These and other findings will be elaborated in the following chapter - suffice it to say at this stage that they provided further justification for investigating the area of alienation from school.

II. STATEMENT OF THE PROBLEM

At this point it is appropriate to make a clear statement of the research problem. The primary aim of this research is to investigate the phenomenon of school alienation as it relates to fourth form students in Canterbury secondary schools. The task, then, is essentially comprised of two parts:

(i) to identify the nature of factors which may relate to school alienation, and

(ii) to determine whether or not these factors actually contribute to variance of school alienation.

III. SIGNIFICANCE OF THE PROBLEM

Such an investigation is of undoubted significance with regard to the individual student, the school, educational planning and policy, and finally society in general (the extent and nature of these implications will be elaborated more fully in the review of the literature).

For the individual, school alienation is not only of significance with regard to academic performance, but is also rich with psychological and social implications - for example, with regard to the influence it may have on the student's perceptions of social reality, his self-esteem, his ability to relate to fellow students and members of the school hierarchy, and so on. Likewise this study is important for school administrators in that it may well provide insights into areas such as the effect of the school's structure on the student; the need for, and nature of, counselling services in the school; and so forth. This is closely related to the potential implications of this research for educational planning and policy, in that a study of this nature could well provide directions for matters such as curriculum content, assessment and evaluation, and use of resources. And finally, this research may perhaps be of some value in contributing towards an understanding of society in that it may clarify the possible effects - or negative consequences - that school alienation may have with regard to society in general.

Boag (in Mitchell, 1971, p.62) has remarked that '... we still have much to do to make secondary education more meaningful to the pupils involved in it, to encourage changes of attitudes on the part of staff members and administrators towards even more positively helping their students to grow as individuals and towards encouraging them to develop behaviours that are considered appropriate for future contributing members of our society, and to making the schools themselves institutions attractive to the students with courses and methods that are immediately acceptable to them'. The extent to which this study can contribute towards the realisation of such an objective will ultimately determine the significance of this research.

CHAPTER II

REVIEW OF THE LITERATURE

Introductory Comment. This chapter will be devoted to an extended discussion of the theoretical and empirical history of the concept of alienation. An understanding of the historical context of the concept is an invaluable prerequisite for informed interpretation of the research and an appreciation of the theoretical and methodological issues involved. A consideration of the empirical research that has focused on alienation will lead to the more specific area of school alienation, and finally the chapter will culminate in an account of Anderson's research, since his work was of primary significance in the formulation of this thesis research.

> *'There is almost no aspect of contemporary life which has not been discussed in terms of "alienation." Whether or not it is the salient feature of this age, it would certainly seem to be its watchword'.*
>
> (Schacht, 1970)

In the introduction to his major review of the alienation literature, Schacht has highlighted the paradox surrounding the concept of alienation: namely, that although alienation is regarded as being a central concept in the social sciences, its meaning nevertheless remains imprecise and nebulous. Thus Mackey (1970, p.84) has remarked: 'The concept of alienation has been one of the most commonly used and least

well defined concepts in modern sociology'; or, as Schimek and Meyer (1975, p.727) have similarly noted: 'The popularity of the concept of alienation is only equated by its ambiguity.' Many writers have commented on the confusion and definitional ambiguity which seems to characterise the concept (for example: Horton, 1964; Nettler, 1969; Burbach, 1972; Ludz, 1973; Mehra, 1973; Smith, 1975; Fischer, 1976; Holmes, 1976), while others have questioned its utility for social scientists. Feuer (1963, p.140) has claimed that alienation '... is as multipotential as the varieties of human experience', and Kaufman (1965, p.164) has suggested that '... sociologists as well as others engaged in scientific investigation would be better off if they eliminated the term 'alienation' from their *scientific* vocabulary.' This view has since been reiterated by Lee (1971) in his obituary for alienation as a scientific term.

Yet Horowitz (1966) sees danger in a 'premature scrapping' of the term, and indeed the explosion of general viewpoints and empirical studies (see, for example, reviews by Lystad, 1972; Ludz, 1973; and Seeman, 1975) over the past two decades would seem to indicate that the concept of alienation has retained a prominent place in contemporary studies of society, its institutions, and its members. The problem with the concept of alienation may well be that it explains so much - and yet, in doing so, it actually explains very little. Even so, as Mackenzie (1964, p.27) remarks, 'Such words are, of course, invaluable: they provide the common currency of the social sciences and without them generalizations would be impossible. But we cannot permit the currency to be devalued to the point where all useful meaning has been rubbed away. Either "alienation" carries a reasonably specific meaning, and we can use it to gain fresh insights into our society and what is happening to people in it, or it becomes an epithet we use to save ourselves the trouble of genuine and careful analysis.' The challenge, then, has been issued; and, in response

to this, any endeavour to establish a precise, insightful understanding of this complex concept inevitably demands an analysis of the history of the term.

I. THEORETICAL HISTORY OF THE CONCEPT

The concept of alienation was philosophical and theological in origin, and within this framework can be traced back to Plotinus (AD 204-70), the last of the Ancient Greek philosophers and the founder of Neoplatonism. Plotinus '...used a Greek term translatable as "alienation" in the sense of "emanation" from pure Being into its various manifestations. For example, physical matter (the lowest stage) is the most completely alienated from the Ideas of pure Being or the One' (Bronfenbrenner, 1973, p.272). A similar concept had emerged with the genesis of Christianity - in the writings, for example, of Paul the Apostle and later of St. Augustine - and here two interpretations of the theme were common: firstly, that of alienation from God and the order of the universe He created, and secondly, that of man as a stranger or pilgrim on earth. In addition to this 'societal' meaning of alienation (referring to the sense of the individual's estrangement or separation from God, from his fellow man, or from his country) the concept was rapidly extending into other spheres. It had soon come to involve property and other legal rights, and had also been incorporated in medical-psychological terminology, where it was used '...in connection with the state of unconsciousness, and the paralysis or loss of one's mental powers or senses...' (Schacht, 1970, p.2).

With the Reformation, the alienation concept began to take on increased importance in the Protestant theology of Calvin and Luther who saw man as being alienated from God by his original sin. In fact Feuer (1963, p.128) claims that Hegel 'imbibed the concept of alienation

from pessimistic Protestant theology...'. However, prior to Hegel there was another philosophical context in which the concept was used - namely that of social contract theory. In terms of this theory, Rousseau speaks of the alienation of the individual's natural rights in favour of the community. However, Rousseau does not develop a philosophical or sociological theory of alienation - in fact it has been suggested that he is not completely clear about what is involved in alienation and just what it is that is to be alienated. For example, Schacht (1970, p.11-12) reminds us that: '...the meaning of "alienated to the community" is not entirely clear. In some cases it may be construed in the sense of "transferred to the community"; while in others it must be understood in the sense of "renounced before the community."... Rousseau has both things in mind, on different occasions.'

But, more importantly, Rousseau went beyond social contract theory and extended the application of the concept of alienation to refer not only to the surrender of the individual's natural rights to the community but also to the surrender of his entire self - and it would seem that here Hegel has derived much from Rousseau's discussion. Thus, through Rousseau and through the "German connection", we are indirectly led to Hegel, Feuerbach, and Marx - the prominent nineteenth-century German idealist philosophers.

Hegel distinguished between two senses of "alienation" - that of alienation as separation, where he used it to refer to a separation or discordant relation (for example, between one's actual condition and essential nature), and that of alienation as surrender, which referred to the surrender or sacrifice that is necessary if one is to overcome alienation and reattain unity (the latter use of the term is closely paralleled in the work of Rousseau, as mentioned above). The central discussion of alienation appeared in Hegel's ontology - as Oiserman

(1965, p.145-6) comments: 'With the help of the concept of alienation the gap between such differing entities as thinking and being, the knower and the known, knowledge and its subject matter, was bridged in Hegel's epistemology. In his philosophy of history the concept of alienation served as a basis for his claim that the history of mankind represents a unified process of realizing freedom, and that this process in a sense constitutes the substantial content of mankind....According to Hegel all development involves genesis, negation and, then, further alienation in the form of negation of negation.'

Thus, in his Phenomenology of Spirit, Hegel succeeded in elevating the concept of alienation to considerable philosophical significance and firmly set the concept '...on a metaphysical and ideal-historical foundation' (Schaar, 1961, p.183). Although Hegel was regarded as the forerunner of the Marxist theory of alienation, it was Feuerbach (often referred to as the "middle man between Hegel and Marx") who relocated the analysis from the ideal level to the real, from the abstract to a more specific explanation of alienation. Feuerbach substituted anthropology as the basis for his thinking (although, as Horowitz (1966, p.231) reminds us: 'The word "anthropology" was being used as a surrogate for "psychology," since Feuerbach neither knew of nor really appreciated anthropology in any exact, empirical sense.') He claimed that religion was the cause of alienation because it entailed the reification of man's essence - and with this argument he succeeded in providing the 'historical link between Hegel's idealistic conception of the problem of alienation and Marx's socioeconomic conception of it...' (Schaar, 1961, p.185). As Oiserman (1965, p.146) notes: 'Feuerbach did away with the universal and absolute character of Hegel's concept of alienation and proved that this concept becomes meaningful only in respect to human activity.'

But although Feuerbach had rejected Hegel's idealism, it was Marx

who ' "brought Hegel down to earth" by locating alienation in the labour process' (Mackenzie, 1964, p.28). Thus, it was in the writings of Marx that alienation first became a sociological and empirical concept - Schaar (1961, p.184), for example, comments that 'what Marx did was to write a huge analogue to Hegel, but in the language of sociology and economics rather than in the language of metaphysics'. But although there were obvious connections between Hegel and Marx in their conceptions of alienation, Marx did depart from Hegel's analysis in several important respects. For example, a primary feature of Marx's work is that he claimed that the roots of alienation lay in the means of production - thus he approached the problem within a specific institutional context (namely, that of the economy). Furthermore, a single general sense of "alienation" emerges in Marx's writings, and this 'affords a contrast with Hegel's two senses of "alienation." In Marx, the separation is the *result* of the surrender; whereas in Hegel's discussion of the relation of the individual to the social substance the separation ... is *overcome through* the surrender' (Schacht, 1970, p.83). To this extent, then, Marx's analysis of alienation provides some insights into the tension between Hegelian ontology and empirical sociology.

There were three aspects to Marx's analysis of alienation: religious alienation (in which he critically analysed Feuerbach's philosophy of religion); political alienation (which was largely a criticism of Hegel's philosophy of the state); and economic alienation. The emphasis here will be on the latter theme, since Marx regarded economic alienation as being the most basic - and claimed that political and religious alienation could be regarded as reflections of the economic conditions existing in society.

Marx regarded labour as being man's most important activity, as he believed that it is through labour that man realises his own nature or

essence - 'Through work man creates his world, and as a consequence he creates himself' (Israel, 1971, p.37). Given the appropriate conditions of freedom, man is a creative and active being but, Marx claimed, in capitalist society the individual becomes transformed into a passive object and consequently becomes estranged from his own essential nature. For Marx, then, the genesis of alienation is in the economy, and is revealed in work and in the division of labour. The ideal of labour 'is represented by the active, consciously willing, self-realizing man in a social process of production, where in addition the activity is a goal in itself' (Israel, 1971, p.39); any kind of labour which lacks these characteristics is alienated activity. Thus, Marx's conception of alienation referred to the separation between an individual and the products of his labour - a separation which continually exists under the dehumanising conditions of capitalism and its institutions. In the Economic and Philosophical Manuscripts (1844) Marx identifies four stages which he claims are involved in alienation:

(1) Alienation from the work process. Here the process of work becomes external or 'alien' to the worker because he ceases to get fulfilment or satisfaction from his activities. As Oiserman (1965, p.147) comments: 'Alienated labor is an externally imposed necessity and not at all a longing; it is the means to live but not life itself. For the man whose labor is alienated, life begins where work ends.' Work becomes meaningless.

(2) Alienation from the product of work (which, for Marx, is also alienation from nature). From the world of alienated labour emerge alienated objects which stand opposing man as a hostile, external force. The worker 'loses' the products of his own labour in that he comes to see them as objects rather than as an integral part of his self and of his creative life activity. 'Alienation in this sense is the condition of

both 'loss' and 'servitude'. It is not man who dominates nature, who shapes it according to his own needs, but rather a nature or technology of man's own making which comes to dominate him as an alien, autonomous force' (Ludz, 1973, p.17). This suggests not only that the worker's activities and products have become meaningless but also that the worker has become powerless due to the realm of objects acquiring an independent power which the worker finds hostile.

(3) Alienation from the "species being". If man is alienated from his work activities and also from the products of his own work, then he can no longer experience himself as a human being. He becomes self-estranged - alienated from his creative potential and from the social bonds that define him as a human being (his "species being").

(4) Alienation from man. Since man has become alienated from his own humanity, he consequently becomes alienated from his fellow workers and from other members of society. For 'When man confronts himself he also confronts *other* men. What is true of man's relationship to his work, to the product of his work and to himself, is also true of his relationship to other men, to their labour and to the objects of their labour' (Bottomore, 1963, p.129). Consequently, man is isolated.

These then are the four aspects which Marx believed were vital links in a complex chain of development. Several writers have since criticised his use of the term - Schacht (1970, p.113), for example, has queried whether Marx's use of the term can convey anything very specific, and goes so far as to suggest that in Marx's hands 'the term becomes little more than a general term whose utility lies primarily in the initial specification of a certain syndrome of separations, rather than in their closer analysis.' Nevertheless, the significance of Marx's contribution should not be underestimated for his interpretation of alienation firmly firmly placed that concept within the realm of sociological analysis, and

his valuable insights continue to permeate and inspire much of the current theoretical and empirical work on the problem of alienation (see, for example, Langslet, 1963; Aiken and Hage, 1966; Grimes and Simmons, 1970; Djilas, 1971; Plasek, 1974; Antonio, 1975; Archibald, 1976; Holmes, 1976; Fischer, 1976).

From Marx's discussion of the alienation of the worker emerged the notion of powerlessness, and in the work of Weber we find an extension of this. Although there are similarities in Marx's and Weber's notions of power, Weber extended the idea of powerlessness beyond the industrial sphere to the modern professional worker: 'Marx's emphasis upon the wage worker as being "separated from the means of production" becomes, in Weber's perspective, merely one case of a universal trend. The modern soldier is equally separated from the means of violence; the scientist from the means of inquiry; and the civil servant from the means of administration' (Gerth and Mills, 1946, p.50). In some respects, then, Weber enlarged upon Marx, but although his views about rationalization and bureaucratization do indeed bear similarities to Marx's interpretation of alienation, Weber did differ from him in many respects. For while Marx was preoccupied with the conflicts between social classes within changing social structures and productive relations, Weber was more concerned with the subjective meanings that men attached to their behaviour within specific social-historical contexts. For Israel (1971, p.121) the major difference between the two theorists lies in the fact that Marx's theory is <u>individual-oriented</u> whereas Weber's theory is <u>society-oriented</u>. Because of existing power conditions and property relations, conflicts arise between men in their attempts to master nature - thus, in Marx's theory the struggle between the individual and society is essentially a struggle between groups of the society and is situated <u>within</u> the society. And since social processes create alienation, the emphasis is on changing

the social conditions. In contrast to this is the society-oriented theory in which alienation is created not by social processes but by human behaviour. There is conflict between man and society, but the emphasis is placed on social adjustment rather than on changing society. 'Thus, whereas Marx is concerned with the consequences of the social and economic structure upon the life of man, Weber restricts himself to a functional analysis and describes formal rationality without going deeply into the consequences it may have for man. These differences exemplify what we mean by an individual-oriented vs. a society-oriented approach'.

Two other nineteenth/early-twentieth century sociologists - Simmel and Durkheim - were also interested in the alienation of man from aspects of urbanised society. Simmel was concerned about the individual's chances of maintaining his individuality and personality in an impersonal mass-society - this, for Simmel, exemplified the problem of culture. Whereas Weber viewed man as the sum of his roles, Simmel started from the idea of a human totality and believed roles constituted a threat to this totality. The process of urbanisation fostered the 'progressive fragmentation of the individual self into routinized roles, the blunting of recognition of others, and of one's own self. Simmel views metropolis as the culture of the mind, not the heart. For him, the phenomena of community, on the one hand, and alienation on the other, are but two poles of man's eternal identity' (Lystad, 1972, p.91).

Like Simmel, Durkheim was also concerned with the problem of the maintenance of individuality in industrial society, and the relationship between the individual's personality and such a society. Thus, the theories of Marx, Weber, Simmel and Durkheim shared a common foundation: criticism of the process of industrialization. Durkheim conceived of society as exerting moral authority or control over its members. However when social integration breaks down (as is typical during periods of rapid

social change) society ceases to exert this regulating influence over its members - consequently individuals are left to their own resources and tend to become uncertain about themselves and their relationship to society. Durkheim introduced the concept of anomie to refer to this state of disturbance or relative normlessness in a collective order. The concept therefore explained the relationship between a social condition and behaviour; as such 'anomie does not refer to a state of mind, but to a property of the social structure. It characterizes a condition in which individual desires are no longer regulated by common norms and where, as a consequence, individuals are left without moral guidance in the pursuit of their goals' (Coser, 1971, p.133).

Durkheim's concept of anomie has been of critical importance in discussions of alienation - to such an extent that it has been acknowledged as the second source of the concept of alienation in the history of ideas. The two concepts partly overlap in terms of the social conditions to which they refer, highlighting the fact that both concepts are primarily sociological, rather than psychological, in content. But although the concepts consequently share some formal characteristics, several writers (including Horton, 1964; Mizruchi, 1964; Lukes, 1972; and Tastis and Zito, 1974) have noted that they do differ in important respects. Horton, for example, has suggested that alienation and anomie are founded on opposite conceptions of man and society; for Marx, man was an essentially creative, active being whose potential could only be fully realised in a society which was free of constraint. Durkheim viewed man as being essentially in need of limits and discipline - thus, while Marx viewed social constraint as a denial of freedom, Durkheim regarded such constraint or regulation as being a prerequisite for human freedom. 'Whereas anomic man is, for Durkheim, the unregulated man who needs rules to live by, limits to his desires, "circumscribed tasks" to perform and

"limited horizons" for his thoughts, alienated man is, for Marx, a man in the grip of the system, who "cannot escape" from a "particular, exclusive sphere of activity which is forced upon him" ' (Lukes, 1972, p.25). Perhaps the essential distinction between the two concepts is captured by Horton's comment (1964, p.289) that: '...society can be interpreted transcendentally and extrinsically as an entity different from and morally superior to individual men; or it can be interpreted immanently as the extension of men, the indwelling of men. Alienation assumes an immanent interpretation of man and society; anomie a transcendent one.'

Historically, the concept of alienation developed within the realm of European sociology and as such it was embedded in a framework which was descriptive and analytic rather than empirical. Although Durkheim's analysis of anomie had contributed stimulating insights into the nature of the cultural and structural sources of alienation, interest in the concept of alienation nevertheless subsequently waned. After World War II, however, alienation re-emerged as the focus of much sociological and psychological interest - and in part the subsequent popularisation of the term was attributable to Erich Fromm who introduced the Marxian conception of alienation to the English-speaking world. Like Marx, Fromm was concerned with the problem of the individual achieving a meaningful and productive experience in modern society but he made a significant contribution in elaborating and expanding upon Marx's conception of alienation. Fromm regarded alienation as being a normative condition in society, and as such it was, for him, synonymous with the sickness of modern man. In The Sane Society (1963, p.120-1) Fromm provides us with a vivid description of alienation - a description which essentially portrays the powerlessness and self-estrangement of modern man: 'By alienation is meant a mode of experience in which the person experiences himself as alien. He has become, one might say, estranged from himself.

He does not experience himself as the center of his world, as the creator of his own acts - but his acts and their consequences have become his masters, whom he obeys, or whom he may even worship. The alienated person is out of touch with himself as he is out of touch with any other person. He, like the others, are experienced as things are experienced; with the senses and with common sense, but at the same time without being related to oneself and to the world outside productively'. This definition highlights the two major ways in which Fromm expanded Marx's conception of alienation. Firstly, he broadened the concept to cover a much wider range of phenomena (although several writers including Schaar (1961) and Kon (1967) have criticised this expansion. Schacht (1970, p.140), for instance, has commented that Fromm uses the concept '...so freely and loosely that the results are much more confusing than illuminating'); secondly, Fromm gave the concept greater psychological depth. In this respect, Fromm (along with Herbert Marcuse, another neo-Freudian and an influential interpreter of Marx's concept of alienation) has provided an impetus to the writings of several psychoanalytic theorists - as is evident, for example, in Karen Horney's discussion of the 'neurotic personality'.

Fromm and Marcuse shared a conception of man becoming alienated from himself and from his essential nature; C. Wright Mills, on the other hand, departed from this in that he viewed alienation as a discrepancy in the ideals of society. Thus, for Mills '...alienation becomes the discrepancy between the values of the society, which are learned (and which in turn create aspirations within the individual) and the social structure of the society, which prevents the realization of these aspirations' (Israel, 1971, p.150). The notion of a 'discrepancy' between a set of values and the socially structured opportunities for achieving them seems central to many theoretical and empirical writings (as, for

example, Finifter (1972) has observed) but perhaps nowhere is this idea more apparent than in the work of Robert Merton.

During the decades since World War II, Merton's theory of anomie has had a significant effect on contemporary sociology. Inspired by Durkheim's analysis of anomie, Merton sought to investigate the relationship between deviant behaviour and specific types of social structure. In his view deviance could not be reduced to psychopathology or idiosyncrasy; rather, it was incorporated into, and emerged from, the fabric of society. He claimed that all social systems consist of two elements: culturally defined goals, and the legitimate means for achieving these goals; furthermore, if a society is to remain stable and cohesive then these goals and means must be well integrated. Where there is a dissociation between the two then there exists a situation of 'anomie'. Thus, in Merton's theory, anomie represents '...a breakdown in the cultural structure, occurring particularly when there is an acute disjunction between the cultural norms and goals and the socially structured capacities of members of the group to act in accord with them' (Merton, 1957, p.162). In addition, Merton suggested that there is a variety of ways in which an individual can adapt to this discrepancy: he may accept or reject either the cultural goals or the institutionalized means of attaining these goals, or he may reject them both and substitute new goals and means. Diagrammatically, Merton's typology is as follows:

Mode of adaptation	Cultural goals	Institutionalized means
1. Conformity	+	+
2. Adaptation	+	-
3. Ritualism	-	+
4. Retreatism	-	-
5. Rebellion	±	±

where "+" indicates acceptance, "-" indicates rejection, and "±" indicates a rejection of prevailing values and a substitution of new ones.

Although Merton's anomie concept is linked with alienation, the two terms are not synonymous - Gerson (1965) has suggested that anomie may be more properly defined as an "alienating condition". Likewise Schacht (1970, p.179), in pointing out that alienation is not a central category in Merton's discussion, notes that 'the term figures more prominently in Parsons' discussion of the interaction between the social system and the individual personality.' (Parsons, like Merton, was also interested in individual reactions to strain, and in The Social System (1952) he introduced the idea of a 'conformity-alienation' dimension in the individual's personality structure.) In a subjective, psychological sense, alienation and anomie would seem to be closely connected as is suggested in Nettler's comment (1957, p.672) that '...it is difficult to conceive of any notable degree of anomie that would not result in alienation'. The failure to distinguish between the two terms has undoubtedly contributed to the confusion surrounding the alienation concept - Merton, for example, has failed to deal with the relationship between alienation and anomie. Furthermore Seeman, whose typology has inspired much of the current debate on the alienation problem, seems to simplify the concept of anomie too much - in this regard, he has been criticised by Ludz (1973, p.13) who claims that Seeman '...passes over 'anomie' too quickly, describing it simply as 'normlessness' and subordinating it to his concept of 'alienation' '.

The preceding analysis of the theoretical history of the concept of alienation has indicated that the concept is primarily rooted in the sociological tradition, although it has also been analysed from the perspective of psychological theory (as is evident, for example, in the therapeutic approaches of Fromm and Horney; in Riesman's discussion of the

'other-directed'; and so on). But although the concept is, consequently, of considerable theoretical standing in the history of ideas, important issues were beginning to emerge - issues which demanded a more empirical approach. The traditional descriptive-analytic approach that had for so long provided a frame of reference for discussions on alienation now ceased to be sufficient. Nevertheless 'the perspective that these general and historical works provide is indispensable. Though a narrower focus characterizes the empirically oriented alienation studies, these studies nonetheless lay claim to a broad intellectual tradition which, comprehendingly or not, they develop, challenge, or alter (and, some would say, distort)... These intellectual backgrounds and debates are constantly at issue in the empirical investigations of alienation...' (Seeman, 1975, p.92). It is to an analysis of this empirically oriented research that we will now turn.

II. EMPIRICAL HISTORY OF THE CONCEPT

It is only in recent years that the concept of alienation has been submitted to empirical investigation. The long and rather diverse history of alienation in theology, philosophy and social science has contributed to the richness of the intellectual tradition of the concept, but it has also (along with the comparatively recent resurgence and popularisation of the concept in contemporary social science) contributed to much of the ambiguity and confusion that continues to plague the concept. A number of key issues have emerged from the voluminous literature on the alienation concept, and many recent empirically oriented studies have gone some way to resolving these issues. The debates which are now constantly at issue in alienation studies provide a frame of reference within which contemporary empirical research will now be reviewed. These important issues are as follows:-

(i) Has the concept of alienation a useful meaning for sociology?

(ii) What is its nature in terms of dimensions - is it a multi-dimensional or a unitary concept?

(iii) Is it essentially a psychological or sociological concept?

(iv) Can it be measured, and validated?

(v) Can it be treated 'value-free' or is it a concept that is intimately connected with values?

These problems required empirical as well as theoretical resolution, and in this respect a most significant contribution was made by Seeman (1959) who led the attempt to clarify the meaning of alienation, place it in theoretical perspective, and make it amenable to empirical research. Seeman acknowledged that although the alienation concept is a central feature in much sociological work, there is, nevertheless, little agreement as to what actually constitutes alienation (a point which many writers have been concerned about - for example: Gould (1969); Hobart (1965); Mitchell (1971); Overend (1975); Simpson (1968)). From an analysis of the literature, Seeman identified five variants of alienation:-

(1) Powerlessness which originates in the Marxian view of alienation and refers to '...*the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcements, he seeks*' (Seeman, 1959, p.784). The individual feels that it is not within his power to decide his own future, and that control is in the hands of external forces such as powerful others, luck, or fate.

(2) Meaninglessness refers to the individual's lack of understanding of the events in which he is engaged. The individual becomes confused, he does not know what he should believe in and is unable to choose between alternative types of action: his '*minimal standards for clarity in decision-making are not met*' (Seeman, 1959, p.786).

(3) Normlessness derives from Durkheim's and Merton's description of anomie in that it refers to a situation where the goals set for the individual by the culture are not congruent with the means for achieving them. From the individual's point of view this type of situation can be defined as 'one in which there is a *high expectancy that socially unapproved behaviors are required to achieve given goals*' (Seeman, 1959, p.788).

(4) Isolation (or cultural estrangement) refers to the individual's rejection of the goals and values of his community. In this variant of alienation the individual assigns '*low reward value to goals or beliefs that are typically highly valued in the given society*' (Seeman, 1959, p.789). This variant essentially refers to value isolation. (In a later work, Seeman identified a further variant - social isolation - which refers to the individual's feeling of being excluded from the family, from friends, and from social activities. That is 'the individual's low expectancy for inclusion and social acceptance, expressed typically in feelings of loneliness or feelings of rejection or repudiation...' (Seeman, 1972, p.473)).

(5) Self-estrangement is closely related to Fromm's conception of alienation and Riesman's discussion of the 'other-directed'. Essentially, self-estrangement refers to the dissociation that occurs between the person and his unrewarding activity. In other words, the worker becomes alienated while carrying out unfulfilling or uncreative work. (Seeman has also identified two other meanings of self-estrangement: that of the discrepancy between an individual's ideal self-image and his real self; and the failure of an individual to fully realise his human potential. However the initial Marxian view offers the most satisfactory definition for the purposes of this study.)

Seeman's typology was primarily based on social learning theory -

as is reflected in the use of the concepts of 'reward value', 'behaviour', and 'expectancy' - and as such it was distinctly social-psychological in nature. Other writers have since criticised his analysis: for example, the Mouledous (1964, p.78-9), in maintaining that Seeman's referral to Marx in his use of alienation is both narrow and distorting, suggest that 'it would have been better for Seeman not to refer to Marx or any of the historical literature than to do so superficially and then narrow and distort the meaning to his own purposes'. Also, Browning *et al.* (1961, p.780) have suggested that not only are Seeman's categories *ad hoc* (a point reiterated by Taviss, 1969) but they are also ambiguous. Their suggestion is that one should view alienation as a process since this would make the concept more amenable to sharper empirical use. However, as Seeman has ably pointed out in his replies (1964; 1961), he does not distort Marx since he had already acknowledged that the Marxian version of alienation is more complex than 'powerlessness' and furthermore Marx himself failed to distinguish between alienation as an objective condition and as an individual reaction. And while Browning *et al.*'s conception of alienation as a process may provide some insights (for instance, the notion of alienation as a process has been utilised in the work of Stokols, 1974, 1975) it nevertheless '...leaves too little room for historical circumstances, situational pressure, or personality type in shaping the specific form or sequence that alienation will take' (Seeman, 1961, p.781).

Seeman does not claim that these variants of alienation comprise a logically exhaustive typology and indeed various alternative forms of alienation have been suggested - for example Dowdy (1966) has suggested that Seeman has overlooked the 'legitimacy' aspect of alienation, and Keniston (1965) believes that if alienation is to be meaningful then it requires further specification in at least four respects, namely: the focus of alienation, the relationship that replaces the one which has been

lost, the mode of alienation, and finally the source or agent of alienation. Keniston's conceptualisation of alienation is essentially psychological in nature, and may well provide a guideline for the clarification of the concept for those writers who are intent on restricting the concept to the realm of psychology. But in spite of these alternative constructions it cannot be denied that - as Ludz (1973, p.30) has claimed - 'Seeman's compartmentalisation of the alienation concept into five or six meanings has served as a guideline to nearly all social scientists who have dealt with alienation after publication of the 1959 article.' (For instance, Seeman's influence is clearly identifiable in such studies as those by Middleton (1963), Sorhaindo (1971), Rafalides (1971) and Maghami (1974) - to mention but a few. See also Seeman's (1975) review of alienation studies, and Lystad's (1972) review of the current literature on social alienation.)

As a result of Seeman's 1959 article and his subsequent research, much interest focused on analysis of the components of alienation, in order to determine whether alienation should be viewed as a multi-dimensional or unidimensional phenomenon. A number of studies have sought to determine whether or not the various components of alienation can be separated empirically as well as analytically. Subsequently, some theorists such as Srole (1956), Nettler (1957), Rhodes (1961), and Couch (1966) regard alienation as a unidimensional construct, while others including Dean (1961), Neal and Rettig (1963), Keniston (1965), Schiamberg (1970), Rafalides (1971), Burbach (1972), Hoge and Luidens (1972), Anderson (1973), Roof (1974), and Skerl (1977) prefer to view it as a multidimensional phenomenon. The factoring procedure can determine whether alienation is a general factor or whether it consists of numerous independent factors, but unfortunately relatively few factor analytic studies of alienation have been conducted. Furthermore, those that have

been done have failed to resolve this issue. For example, Struening and Richardson (1965) found that according to factor analytic criteria 'Alienation via Rejection' is essentially unidimensional in structure; while Neal and Rettig (1967), in a re-examination of the alienation data, found support for both a unidimensional and multidimensional conceptualisation of alienation. However such results need not be contradictory if they derive from variant orders of abstraction - as Neal and Rettig (p.60) comment: '...alienation *in toto* is an abstract concept typing together common elements derivable from the lower-order structure.' Dodder (1969) and Hensley and Munro (1975) carried out factor analyses on Dean's alienation scale and concluded that his scale is a multidimensional measure of alienation (although the dimensions that were identified in their factor analyses did not correspond to Dean's typology). More recently, factor analytic investigations by Knapp (1972, 1976) and Mackey (1975) lend support to the multidimensional structure of alienation, although the two authors differ with regard to the dimensions which comprise alienation. Hence, the question as to the nature of alienation remains largely unsolved and continues to generate much empirical and theoretical debate.

Another issue in the alienation literature is the question as to whether the concept of alienation is essentially a sociological or a psychological one. This, however, is an issue that must remain debatable, in the sense that whether the concept is viewed as sociological or as psychological is largely dependent upon the individual investigator's frame of reference. Psychological theory views alienation as being developmental in nature and it is primarily concerned with individual personality structure and personal pathology. This orientation is very evident, for example, in Davids' (1955) and Keniston's (1965) conceptualisations of alienation. Davids identified an alienation

syndrome which he claimed was composed of five dispositions: egocentricity, distrust, pessimism, anxiety, and resentment. Keniston, in his study of alienated Harvard students, started out with a social or cultural definition of alienation in that he used the concept to refer to the individual's explicit rejection of what he perceives to be the dominant values or norms of society. However, his analysis ultimately turned out to be a psychological classification of the syndrome of attitudes (the 'alienation syndrome') which were typical of his subjects. Much psychological research has benefited from his intensive, detailed, and insightful description of the alienation syndrome (see, for example, Schimek and Meyer, 1975).

In contrast to this approach is that of the sociological school of thought, which 'sees alienation as a *social problem*; a reaction to the stresses, inconsistencies and injustices of the social system' (Mehra, 1973, p.131). The focus of concern is the relationship between the individual and self, others, society, or its institutions. Whereas the psychological perspective views alienation as a quality, 'the structural variables dealt with by sociologists, such as norms, roles, etc., are all relations. Opposed, then, to the position that alienation is a quality is the contention that it is a relation. And here alienation may be a fact of the mind...or a fact of society' (Overend, 1975, p.316).

The distinction drawn by Overend also highlights the problems of measuring alienation which confront the two disciplines. Since the psychological perspective is not of real relevance in this study, it will therefore be largely ignored. Suffice it to say that the conception of alienation as a quality poses major methodological problems for psychology since a quality is not easily quantified. However the notion of alienation as a relation is more amenable to quantification, and indeed several attempts have been made to develop valid measures of alienation.

A scale frequently used for the measurement of alienation/anomie was that developed by Srole (1956). His scale consisted of five items and tested the integration/malintegration of the individual. However there is some confusion as to what is really being measured in this scale (as is reflected, for instance, in the failure to distinguish between anomie and alienation) and a further problem is the brevity of the scale. In addition, Srole's items may be susceptible to acquiescent responses. However the problem of acquiescent responding is one which confronts most measures of alienation, and this suggests that check items should be included in the measure in order to establish some sort of control over this.

Nettler (1957) studied the feeling of estrangement from society and developed a unidimensional alienation scale which consisted of 17 items requiring Yes-No answers. Dean (1961), on the other hand, considered that alienation was a syndrome which consisted of three factors - powerlessness, normlessness, and social isolation - and on this basis he constructed an alienation measure which has since been put to widespread use (see, for example, the studies of Guerrero and Castillo (1966), Blane *et al.* (1968), White (1971), Warner and Hansen (1970), Pulvino and Mickelson (1972), Roof (1974), Calicchia and Barresi (1975), and Preiss (1976)).

Seeman and his fellow researchers have used a scale which is more specific in that it emphasises the powerlessness aspect of alienation. This scale, known as the Internal versus External Control Scale (I.E. Scale), was developed by Rotter and Liverant and, like the previous scales, essentially consists of opinion statements. The response format requires subjects to choose between two usually opposing statements. However the approach of Seeman and others has been subject to some criticism: for example, Overend (1975, p.320-1) claims that '...the upshot from the *operationalization* of these categories of alienation, in the form of a

series of questions to respondents, results not in the *measure* of alienation but something very different. Questions such as: 'To what extent do people who run this country make you do things you don't really want to do?' (*) will not measure latent alienation in the form of powerlessness. Rather it is more likely to measure something closer to *public opinion.* Inasmuch as other authors have taken Seeman's analysis uncritically....the same criticism can be made of their attempt at the empirical measurement of alienation' (for example, Dean (1961), Neal and Rettig (1963, 1967)).

Middleton (1963) attempted to incorporate the best of Seeman and Dean, and produced a scale comprising six agree-disagree items which he used to investigate the relationship between social conditions of deprivation and alienation. One item was devoted to each aspect of alienation - namely powerlessness, meaninglessness, normlessness, cultural estrangement, social estrangement, and estrangement from work. Again a primary characteristic of this scale was its brevity, as was also the case with Clark's (1959) five item scale. Clark (1959, p.849) viewed alienation as '*the degree to which man feels powerless to achieve the role he has determined to be rightfully his in specific situations*' thereby adding a legitimacy aspect to Seeman's conception of powerlessness. However Clark was investigating a clearly defined subsystem (that of an agricultural co-operative) and as such his scale should be regarded as a context-specific measure of alienation rather than as a more general measure.

These early alienation scales were inadequate in many respects - they have been subject to criticism because of their brevity, the 'general'

(*) Example taken from ROSE, A.M. Alienation and participation: a comparison of group leaders and the mass. American Sociological Review 27, 1962.

nature of the questions, and the scales' susceptibility to acquiescent responding. Furthermore, Skerl (1977), for instance, has questioned the suitability of some alienation measures for the study of non-white and non-middle class subjects. Perhaps the major problem confronting alienation measures is the question as to how they can be validated. Simmons (1966) found moderate intercorrelations among eight variables which are frequently construed as facets of alienation (including, for example, Dean's powerlessness, normlessness, and social isolation dimensions, and Srole's despair dimension) and further claimed that these intercorrelations could not be explained in terms of the contamination of the variables by one another. However he did note that the validity or correspondence between the scales and the concepts they purport to measure is problematic (a point re-iterated by Vaughan, 1972). But alienation does have psychological implications and consequently an individual could erect defenses which might make it difficult even for experts to identify a case of alienation. This may be a possible explanation of Roof's (1974) finding that there was little relationship between those students who were identified as alienated by teachers, counsellors and administrators, and those students who were identified as alienated by Dean's scale of alienation. Most studies, however, emphasise face validity and construct validity - which is made possible by careful definition of terms and the use of factor analytic procedures. One factor which does influence validity is the length of the test, and this also affects its reliability. Clearly, then, the early alienation measures - which typically involved only a small number of items - were inadequate in this respect. It would seem, then, that alienation measures <u>can</u> be validated - although the problems involved in accomplishing this present a considerable challenge to the researcher.

Various measures of alienation have also been criticised on the grounds that the scales are vitiated by implicit values (the implication

being that to say that one is alienated leads to the assumption that one is also necessarily deviant). Thus Horton (1964, p.283) asks: 'are contemporary definitions of alienation and anomie actually value-free, or are we witnessing a transformation from radical to conformist definitions and values under the guise of value-free sociology?' In similar vein, Israel (1971) calls for the rejection of the alienation concept on the grounds that it entails value premises; and Castillo (1968), in discussing the problems that alienation poses for industrial sociologists, also acknowledges the difficulty of avoiding making value judgements and inserting one's beliefs - consciously or unconsciously - into one's empirical research.

The problem of values is indeed a difficult one: social scientists are not only 'scientists' but are members of a particular society and culture as well. It is hardly surprising that these dual roles impose some degree of 'role conflict' on the researcher. Merton, for instance, analysed deviant behaviour within the framework of the concept of anomie. Yet the anomie concept rests on the assumption that the American culture, with its accompanying ethic of success, is an adequate culture (at least for Americans) and to this extent the anomie concept cannot be regarded as 'value-free'. The 'middle-range' sociologist is, then, not necessarily synonymous with the 'value-free' theoretician. Plasek (1974, p.323), however, claims that 'one cannot determine the existence of alienation without making certain value judgements with respect to social phenomena. The criteria employed in the decisions that social relations are alienating and threatening the development of human nature necessarily involve value judgments'. Overend also devotes considerable attention to this issue and emphasises that one must make the distinction between the descriptive, analytic content of the alienation concept (its 'locutionary force') and the evaluative import (or 'illocutionary force') of the concept. He points

out that alienation, like many other concepts, has both a locutionary and illocutionary force, but that this dichotomy is not one of meaning. Rather, the explicit or implicit evaluative import of alienation (in other words, its normative content) is external to the concept's meaning. Consequently 'the meaning (locutionary force) of alienation...can be gleaned without entering into its evaluative import...An investigation *can* thus be carried out to find 'what alienated men are alienated from' without considering whether this is commendable or not, or whether one regards it as a 'malignant form' or not' (Overend, 1975, p.312). He then goes on to consider the question of values in terms of the evaluative import in sociology propositions and the ideological distortions (or the ethical beliefs and ideas comprising the underlying assumptions) in sociological theory. Here Overend points out the importance of distinguishing between sociological considerations (which are concerned with questions of truth and falsity) and ethical considerations (which are concerned with whether propositions are moral or immoral). The point being, then, '...that each consideration is an *autonomous* one, that any ethical import in sociological considerations is *external* to their structure. This is not to say that ethical considerations have not been coextensive with the sociological, but rather they raise *different* issues and can be considered separately' (1975, p.312).

Overend, then, has provided a conceptual resolution of the values problem; on the empirical level Schutz has provided a way of handling this problem through the introduction of the concept of phenomenology. This approach will be elaborated in more detail in a later chapter, but at this stage the main point to note is that the phenomenological sociologist describes social reality as the subject perceives it. Thus the phenomenologist describes social reality - he does not interpret it. And to this extent, the question of values ceases to remain such a

threatening problem for empirical research.

Much of the empirical literature, therefore, has concentrated on the delineation of the dimensions of the alienation concept, in order to make it more amenable to quantification. Although many valuable insights had been contributed, there still remained the criticism that alienation was a global concept - for instance, Mackenzie (1964, p.29) commented that 'the successive attempts to define, to measure and to interpret testify to the attraction of alienation as a concept, but they have so far done more to stimulate ideas than to offer a clear and acceptable working conception'. Williamson (1966) also acknowledged the need for more scientific appraisal, but implied that the global nature of the concept may well account for its persistence in theoretical and empirical debate. In a significant article, Burbach (1972) suggested that the confusion and multiplicity of meanings surrounding alienation may be partly attributable to the fact that researchers have continually failed to specify the context within which alienation has been measured. While researchers had focused on the meaning of alienation and the variety of its dimensions, there was a second area of analysis which had been largely ignored. For in addition to the meaning of alienation, one must also focus on the referent or object of alienation: 'both of these specifications need to be made in order to describe adequately an attitude of alienation' (Finifter, 1972, p.1). So, to use the concept of alienation in a global manner is to invest it with little, if any, significant meaning. 'Alienation takes on meaning as an attribute of an individual only within the context of specified relationships...' (Fischer, 1976, p.47).

The feasibility of some kind of context-specific approach had already been demonstrated in Clark's (1959) study of an agricultural co-operative, but the implications of his approach remained largely unrecognised for almost a decade - as is evident, for example, in the

dearth of methodological literature on context-bound measures of alienation. Following the lead of writers such as Durkheim and Merton, many studies had tended to focus on alienation in terms of whole societies or cultures, and as a consequence the individual was assumed to be alienated from very broad social norms - American values, for instance, or society in general. This may offer an explanation as to why researchers have often failed to agree on measures of alienation: it may be that '...they have been measuring differing populations which were "alienated" from all kinds of "things" or from very diffuse and unspecified values or norms' (Vaughan, 1972, p.32). It also indicates why validation poses such a problem in alienation studies. Wegner (1975) has made an important contribution to the theoretical literature on alienation in an article in which he forcefully points out that the relevant arena of action for an individual is not society as a whole but a specific social context. The behaviour of an individual is context-dependent and must be viewed in relation to the particular social system in which he is participating. Wegner argues, therefore, that 'alienated responses should be studied in specific social contexts, and that the particular interplay of social structure and personality in that situation must be examined as the basis of alienation' (p.183). This type of approach is also evident, for example, in the recent work of Le Parte (1976) and Carr *et al.* (1976).

However several studies had been carried out which did in fact utilise some form of contextual measurement of alienation. These included: studies of alienation from the work organisation - for example, those by Aiken and Hage (1966), Shepard (1972), Payne (1974), Miller (1975), and Evan (1977); Martin *et al.*'s (1974) study of age group differences in alienation within the specific social structural contexts of polity, economy, education, religion, and the family; and Thomas and Zingraff's (1976) investigation of alienation from the organisational structure of a prison.

To the extent that education is one of the primary in a complex of institutions comprising the social system, then the context-specific approach would seem to offer a promising perspective within which the problem of alienation and education could be investigated. Duane (in Adams *et al.* 1971) captures the essence of this intimate link between the education institution and society when he describes the education system as the 'growing part' of its parent society; for it is in the means used to shape its future that a society reveals its true nature. On the empirical level, Burbach (1972) has argued that the university contains the alienating features of larger society and that it therefore offers an appropriate context for the measurement of alienation. Indeed numerous studies have focused on alienation within the context of the university - for example, Oppenheimer (1968), Doshi (1969), Sorhaindo (1971), Whittaker and Watts (1971), Rickfelder (1971), Holian (1972), Hoge and Luidens (1972), Ray and Sutton (1972), Herron (1974), Tolor and Murphy (1975), and Long (1977).

III. SCHOOL ALIENATION: A CONTEXT-SPECIFIC APPROACH

If alienation was a problem within the university, did it also apply to the school - in particular the high school? Obviously Marx's and Seeman's definitions of alienation could be adapted to the school situation. Marx was primarily concerned with the alienation of the worker: yet to the pupil, school is 'work' and thus a direct comparison can be drawn between Marx's worker and the school pupil. To the extent that school is, for the pupil, a sphere of work, then it seems likely that one could expect alienation in that context. Further, Seeman's and Merton's descriptions of a society which creates alienation in its members could also be utilised to define certain school situations in which young people find themselves. Wegner (1975, p.183) has suggested that alienation is most likely under the

following conditions: '(a) where participation is involuntary or where the individual can withdraw only with difficulty, and (b) where individuals are not selected into situations based on their personal characteristics'. Since pupils are legally required to attend school, and the criteria for entry to high school basically revolve around certain academic standards and/or completion of preparatory schooling, then the secondary school clearly meets the two conditions established by Wegner. The high school is a place where students are largely in an involuntary relationship to the school, to its staff, and to the other pupils.

In terms of Marx's analysis, it therefore seems quite likely that pupils may become alienated from the products of their work, from the work process itself, and perhaps even from themselves and from other pupils. However one must note that the situations of the worker and of the school student do differ in that although the pupil may become alienated from the school sector of his social world, he may not necessarily be alienated from himself or from society in general due to the fact that he can derive fulfilment from 'outside school' activities. This is also true of the worker and his leisure activities, but it applies more strongly to the school student due to such factors as the limited hours of school, the influence of the adolescent peer culture, relatively few responsibilities, and so on. So while the Marxian analysis of alienation is a useful framework, it may need adaptation when using it as a perspective within which to study student alienation from school.

Seeman's (1959) analysis of the five categories of alienation and his emphasis upon the personal standpoint of the actor also seems readily applicable to the school situation; for example, the student may feel <u>powerless</u> with regard to the organisation of the school; if the student cannot relate his present school activities to his later adult role, then he may well feel that schoolwork is <u>meaningless</u>; the rules set by others

for his behaviour, the school's emphasis on attainment of success through achieving the goals set for the student via the prescribed methods, and the pressures imposed by these demands, may well be precipitating conditions for feelings of normlessness; if a student fails to place premium on goals and activities which are highly valued by the school, then he may well experience a sense of isolation; and, finally, to the extent that a student fails to derive any intrinsic satisfaction or enjoyment from his school activities - if schoolwork is not seen as an avenue for self-expression and fulfilment of the student's attitudes and interests - then the student may become subject to self-estrangement.

Clearly, parallels can be drawn between alienation of the worker, and the alienation of the student from the specific context of the high school. '...It is clear that school as an institution is as likely a cause of alienation for students as the work environment is for workers or the political system for citizens' (Finifter, 1972, p.85).

The interest in alienation from the high school is closely related to the more general phenomenon of the alienation of youth. And here research has tended to focus mainly on finding out who these youths are, what their relationships with school and family are like, and what happens to them subsequent to their repudiation of society's goals. For example, some studies point out that the alienated adolescent is generally of middle-class background (for example: Hadja, 1961; Keniston, 1967; and Eisner, 1969) while others emphasise alienation of lower-class youth (for example: Stinchcombe's (1964) analysis of high school rebellion). More recently, Mackey (1970, 1975, 1977a and 1977b) has contributed significant theoretical and empirical analyses of adolescent alienation. In applying the concept of alienation to early adolescents, Mackey broadly defined alienation as 'an attitude of separation or estrangement between oneself and salient social objects' (1970, p.84). He claimed that the alienation

construct consisted of five analytically distinct categories (which essentially were modifications of Seeman's earlier postuled definitions):

(i) Powerlessness: comprising two facets: (a) the perceived inability of the individual to maintain control over his life and destiny so that consequently he feels helpless in the face of complex social processes; and (b) the passive acceptance of luck or fate.

(ii) Role estrangement: involving (a) the individual's sense of being used as a function rather than as a person; and (b) the feeling that the person's experience lacks authenticity (see Fromm, 1963 and Friedenberg, 1964).

(iii) Meaninglessness: referring to the failure of the individual to understand his situation, as well as to the apparent lack of purpose, goals, or objectives in the individual's life.

(iv) Guidelessness: or the individual's feelings of conflict due to the inculcation of conflicting norms into his personality, and the discrepancy between desire and opportunity and between means and ends.

(v) Cultural estrangement: is a voluntary attitudinal state in that the individual assigns low reward value to goals which are valued in society, and consequently he may separate himself from the norms and values of society.

Mackey's typology of adolescent alienation also has direct implications for alienation from the high school: the feelings inherent in powerlessness may well inhibit learning; the modern school system may inhibit personal growth and thereby foster inauthenticity; the pupil's academic experience may seem to have little relevance to his future career plans; the school constantly emphasises success and a student may feel incapable of attaining this goal by using the legitimate means; and finally, the student may not accept the norms and values that the school has prescribed for him. In later work, Mackey (1975, 1977a, 1977b) found

that adolescent alienation could be characterised by three independent, measurable dimensions: personal incapacity which taps the adolescent's feeling of a lack of personal effectiveness, and his incapacity in dealing with his environment; guidelessness which refers to the adolescent's rejection of the socially acceptable means of achieving culturally prescribed goals; and, finally, cultural estrangement which refers to a rejection of middle class values (especially the perceived overemphasis on materialistic values). He also claimed that the independent variables of sex, community type, perceived academic ability and socio-economic status made independent contributions to predicting scores on the alienation scales, although confirmation for the cultural estrangement dimension was not as clear cut as for the other two dimensions.

While writers such as Mackey (and also Schiamberg, 1970, and Skerl, 1977) were concentrating on adolescent alienation, there was also an increasing awareness of the role that the school might play in generating feelings of alienation. This is not to deny that other institutions may also be predisposing to alienation (the family, for example) but nevertheless the school is one of the most powerful influences on adolescents. Increasing concern was being expressed with regard to the separation of the adolescent from society and how 'institutions of learning' play a significant role in such isolation (see, for example, Coleman, 1961; Musgrove, 1964; and Hickerson's 1966 study of the relationship between American schools and American society, in which he forcefully demonstrates how the schools, as an integral part of society, have created and supported conditions which have resulted in a general waste of talent and ability, plus the loss of the dignity and self-respect of significant segments of society. Just as economically deprived adults are alienated from society, so are their children formally alienated by, and from, the schools.). Henderson (1967) discussed the possibility of a relationship between

alienation from school and students' continual experiences of failure in the school situation (a view which is also held by Dillon, 1975), while Goldman (1968) attempted, in a somewhat obscure article, to outline the educational consequences of the main forms of alienation. However the 1960's were essentially characterised by token theoretical acknowledgement of the problem - as is typified, for example, by Mann's (1969) claim that schools had lost sight of the quality of the child's experience as a learner, thereby forcing on the pupil the distinct possibility of alienation - be it from himself, or from the school.

The 1970's introduced a more emphatic theoretical interest in the problem of school alienation. McElhinney (1970) claimed that the immediate school environment is one contributing factor to the amount of alienation - and furthermore that school-related alienation (operationally defined as 'absence of control over own life, unequal chances to succeed, absence of pride in accomplishments, school content as irrelevant to their lives outside school, wilful school absence, absence of an understanding teacher, withdrawing when things go wrong at school, absence of parental verbal interest in school, parental avoidance of visiting school, and degree to which pupil saw adults as verbally undependable' (p.321) is even evident in elementary school pupils. Heath (1970) also expressed concern about school alienation and suggested that the school is increasingly exerting influence in controlling and shaping the development of its pupils. This, he suggests, is attributable to '...an historic and irreversible transition in the power of different social institutions to have educative and maturing effects on the young' (p.517). The source of school alienation may be found in the school institution itself - a point which is strongly re-iterated in the work of Bronfenbrenner (1972, 1973). Heath had commented that intimate, face-to-face primary groups such as the family, the neighbourhood group, and the church group are increasingly

losing their 'educative' power to more impersonal, secondary agencies. Bronfenbrenner also acknowledges this in his claim that 'in the last analysis...the roots of alienation are found to be in the institutions of our society as they are presently structured and as they currently function' (1973, p.8) and claims that the institution which has done the most to keep young people isolated from challenging, meaningful social tasks is the school. Thus we find that increasing numbers of high school students are bored by school, find school irrelevant and repressive, perform tasks which are set by others and are duties rather than responsibilities, and do assignments which involve little judgement, decision-making or risk. In such a milieu it would seem that the high school student has little time to develop a stable self-identity (which is one of the crucial psychosocial tasks of adolescence). Gereluk (1974) has attempted to apply a re-definition of Marx's alienation concept to the school situation, and suggests that the source of school alienation lies in the fact that the purposes for which children engage in school are neglected, rather than fulfilled. This, he claims, is due largely to the form that is imposed on school relations by such things as the structures of the school and the structures of the economy.

Thus there is a wealth of theoretical discussion on the problem of school alienation, but up until 1970 there were few attempts to conduct empirical studies of alienation among high school students (as has been noted by Warner and Hansen, 1970, and Pulvino and Mickelson, 1972). Perhaps the earliest empirical investigation in the general area was that done by Stinchcombe (1964) in his study of delinquency and rebellion in high school. He contended that rebellion was a manifestation of expressive alienation: 'High school rebellion involves expression of alienation from socially present authorities; it may thus be called "expressive alienation" ' (p.2). He also claimed that alienation is not necessarily manifested only

in rebellious behaviour - rather, the modes of expression are various and include cynicism, indifference, indignation, withdrawal, hostility, or even a commitment to change (see also Keniston's (1965) discussion of the varieties of alienation, and Bronfenbrenner's (1972) discussion). Hayden *et al.* (1970, p.237) described the alienated student as 'one who lacks involvement in the school culture...Implicit in the notion of "alienation" is a lack of interest, both in academic and extracurricular activities. A history of disciplinary infractions is often present as well as a desire to drop out of school when legally possible. Typically, the student's environmental background is unfamiliar to his teachers and to many of his fellow students. He is often insecure, lacks initiative, and has a low level of aspiration and self-esteem. Consequently, he is not prepared to compete with contemporaries and, more importantly, expresses no desire to do so...'

In the 1970's there emerged a volume of empirical studies on student alienation. However it is important to distinguish between those studies which focused on alienation of high school students, and those which emphasised alienation of high school students from school (i.e. school-related alienation). With regard to the former category of studies, the sample of subjects comprised high school students but the instruments used typically reflected a 'general' as opposed to a 'school-specific' approach to the measurement of alienation (for example, Dean's alienation scale was frequently employed). Nevertheless the studies investigated the relationship between alienation and numerous other variables - for example: self-esteem and attitude toward drinking (Blane *et al.*, 1968); sex, socio-economic status, and grade point average (White, 1971); self-esteem, anxiety and grade point average (Warner and Hansen, 1970); anxiety, grade point average, and dissonance between individual needs and environmental press (Pulvino, 1970); academic achievement (Pulvino and Mickelson, 1972);

discrepancy between educational wishes and expectations (Wilson, 1973); pupil control ideology of teachers (Hedberg, 1973 and Moye, 1976). Preiss (1976), in his study of alienation, self-concept of academic ability, and attendance, noted towards the end of his study that a more refined measure of alienation would be beneficial in future research endeavours. The above studies were concerned with alienation among high school students but they were population-specific rather than context-specific, and this is where refinement of instrumentation was necessary. Williams (1974), for example, comments on the fact that researchers have employed varied and confused meanings of the term alienation in their attempts to measure and diagnose it in schools.

As early as 1963, Epperson adopted a context-specific approach to alienation in his study of classroom alienation. This was perhaps one of the first studies which really tied alienation to the school situation - for example, 'isolation' was defined as '*the assignment by the pupil of a low reward value to behaviors which he sees as highly valued by the classroom*' (p.361). The other dimension of alienation that Epperson was interested in was that of powerlessness, and again this definition was confined to the specific context of the school. Following this there was little further research until the 1970's when several empirical studies of school-related alienation appeared. Again the empirical studies covered a wide range of variables: Beneke (1970) found that high alienation was significantly related to low teacher grades and low standard test results, absence from school, race (Negro), sex (male), lack of participation in school-sponsored activities, and teachers' classification of pupils as 'behaviour problems'. From this it would seem that school alienation is an influential factor in a variety of academic, participative, behavioural and personal characteristics of high school students. Burbach (1972), in studying the powerlessness aspect of school alienation, found that it was

related to low socio-economic status, lack of participation in extracurricular activities, lack of college aspiration, and low grade point average. Flumen (1974) also found that school alienation was related to a wide variety of characteristics including sex (female), low socio-economic background, family disorganisation, favourable attitudes toward (and actual use of) drugs, low school grades, and lack of college plans. Roof (1974) studied a group of students whom teachers and counsellors had identified as school-alienated and, after carrying out regression analyses on a number of variables, put forward a description of the alienated student as being male (a finding which also concurs with that of Holzwarth, 1974) with an I.Q. of 107 and a grade point average of C minus. He is employed, is one of four or five children, and is not involved in any extracurricular activities. His father is employed as either a blue or white collar worker and his mother is a housewife. He is either the second or third child in the family, has a low self-concept, and is viewed by the teacher as one who seldom participates. His attention often wanders, he shows no evidence of independent study, and his performance fluctuates greatly. He views the school setting as more negative than positive. These and other studies (for example, Lipkind (1975) and Dillon and Grout (1976)) have contributed valuable insights into the characteristics of school-alienated secondary school pupils.

The question obviously arises as to whether there are certain aspects or features of the secondary shool that tend to generate school alienation. Along these lines, several studies have investigated the nature of the relationship between alienation and various aspects of school structure. Rafalides (1971), for instance, found that Seeman's conceptualisation of alienation provided a fruitful way to study the alienation of students from school, and her study indicated that there is a significant relationship between custodial pupil control orientation of

the school and a composite measure of school alienation. In a study she conducted with Hoy (1971) these results were basically replicated, although they found that meaninglessness is not necessarily related to school characteristics in the same way as other variants of alienation: 'For example, while custodialism in school may foster normlessness, isolation, and powerlessness, the same set of conditions may tend to ameliorate a sense of meaninglessness' (p.109). Self-estrangement was least well related to custodialism in the pupil control orientation of high schools. However (as the authors suggest) this may be because self-estrangement is more a function of personality and/or the broader social context in which the student is participating. Hartley and Hoy (1972) found that the relationship between school alienation and 'openness' of school climate appears to be a complex one in that such a school climate seems to be significantly related to some variants of alienation but not to others. Other studies in this general area include those of Odetola *et al.* (1972), who failed to find any significant relationship between alienation and team-teaching; Marquis (1974), who found that a complex relationship exists between modular scheduling and alienation, in that modular scheduling as a method of instructional organisation tends to alienate boys but has a less alienative effect on girls; Holzwarth (1974), who failed to find any significant relationship between student alienation and the pupil control ideology of teachers; and Van den Berg (1975), who found that student alienation was related to both the orientation the student brings to school as well as to his perceptions of the social structure within which learning takes place.

Hoyle (1965) had noted that while there is a fairly extensive literature dealing with business organisation, relatively few works have dealt with an organisational analysis of the school. While some of the studies mentioned above have examined, for example, school climate and

and instructional organisation it would seem clear that other aspects of school structure (for instance, the nature of authority that is exercised in a school) may well contribute to students' learning and attitudes towards school. For example, Robbins and Miller (1969) have acknowledged that school structure has an influence over both the process and the product of education. They defined school structure as 'the essential pattern of organization within an educational unit' (p.39). Hoyle suggested that the approach of organisational analysis may be a useful one in attempting to understand the 'separate culture of the school' (p.111). Punch (1969), in adopting a more specific approach to school structure, claimed that its formal organisational aspects could be appropriately analysed from a perspective which viewed the school as a bureaucracy. The classic formulation of a bureaucracy is that delineated by Weber (in Gerth and Mills, 1946, p.196-204). Subsequent to his analysis, the literature on bureaucracy tends to be characterised by inconsistency and confusion as to the nature of bureaucracy and how it might be adequately defined. After analysing this theoretical and empirical debate, Hall (1961) was able to isolate six fundamental characteristics of a bureaucracy: hierarchy of authority, specialisation, rules for incumbents, procedural specifications, impersonality, and technical competence. The relationship between bureaucracy and alienation had been studied in the area of industry (see, for instance, the study by Bonjean and Grimes, 1970) but there had been little empirical research on bureaucracy and school alienation. Kolesar (1967) examined the relationship between pupils' feelings of powerlessness and two measures of bureaucracy ('Authority' and 'Expertise') and found that pupil powerlessness was related to the type of bureaucratic organisation characterising the school. But it was Barry Anderson (1970, 1971a, 1971b, 1971c, 1973, 1974) who built on the theoretical and empirical discussions of alienation and bureaucracy, and

applied the concept of bureaucratic structure to the secondary school in order to investigate its relationship to student alienation from school.

IV. ANDERSON'S RESEARCH ON SCHOOL BUREAUCRATIZATION AND ALIENATION FROM HIGH SCHOOL

The primary purpose of Anderson's research was to investigate the relationship between student alienation and bureaucratization of the school. He defined alienation essentially in terms of the dimensions outlined by Seeman (1959), although he did make some minor changes in terminology to give greater clarity and also specified the school as the object of alienation. Thus, in terms of Anderson's definition, school alienation was comprised of the following dimensions: Powerlessness, Meaninglessness, Misfeasance, Futility, and Self-estrangement. With regard to bureaucratization, Anderson largely followed the lines of Hall (1961) in that he viewed bureaucracy as consisting of the six dimensions specified above.

Anderson designed Likert-type scales to measure school alienation and bureaucratization[1] and validated the measures by the 'known groups' method. Thus the alienation measure was administered both to a committed group of students and to a distinctly alienated group, and any items which failed to differentiate between the two groups were dropped from the scale. A similar procedure was employed for the bureaucratization measure, where pupils from a highly bureaucratic school and from a school which was relatively free of bureaucratic characteristics completed the scale. Again any item which failed to differentiate between these two groups was discarded. The instruments were then administered to some 3,790 Grade ten

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1. The scale measuring school alienation was entitled 'School Expectations Inventory', while that measuring bureaucratization was called the 'School Description Inventory'.

students drawn from eighteen Ontario high schools. Teachers at those schools completed a teacher version of the bureaucratization scale and, on the basis of their perceptions and those of the students, schools were indexed according to the extent to which they were bureaucratically organised. The implication of this, therefore, is that perceptions were used as an actual measure of school bureaucratization.

Image analysis of the alienation data indicated that school alienation could be regarded as a single, integrating, general factor which was comprised of five dimensions: Powerlessness, Meaninglessness, Misteasance, Futility of Extra-curricular Activities, and Self-estrangement. Image analysis of the bureaucratization data revealed that the perceived bureaucratic structure of the school could be described in terms of six dimensions identifiable as Hierarchy of Authority, Subject Matter Specialisation, Rules and Regulations, Impersonality, Technical Competence, and Centralization of Control. These dimensions could be represented by two second-order factors which Anderson labelled Status Maintenance and Behavior Control. Also of note was the fact that Anderson found that there was little correlation between students' and teachers' perceptions of school bureaucratization.

Anderson then examined the relationship between students' alienation and school bureaucratization by means of multiple regression analysis, which also enabled him to establish statistical control over several important variables which previous research had shown to be related to alienation - namely: sex, age (which served as a substitute for past success), socio-economic status, social participation, and membership in school groups. The results of the regression analysis indicated that 'the relationship between bureaucratization and alienation is as hypothesized: increasing presence of bureaucratic characteristics seems to be associated with increasing alienation' (1973, p.328).

The amount of variance in school alienation which Anderson found could be predicted by school bureaucratization was 4.6% (the variance accounted for solely by bureaucratization being 3.7%, and that accounted for by the overlap between bureaucratization and controls being 0.9%). The variance accounted for by all variables was 12.4%, and the variance accounted for by controls was 7.8%.

This, then, essentially summarises Anderson's research. His study succeeded in validating the theoretical relationship between the bureaucratic structure of the secondary school and student alienation from school, and to this extent he has contributed significant insights into the nature of, and the factors which relate to, school alienation. But in addition to this, his study is rich with implications for future research - these implications, together with other issues emerging from the literature, will be pursued in the next chapter.

CHAPTER III

DEVELOPING THE PROBLEM

Various issues emerge from the previous chapter. These will be listed and then discussed in more detail, thus enabling initial formulation of the experimental hypotheses for this study.

In investigating the relationship between alienation and school bureaucratization, Anderson found that bureaucratization accounted for only 4.6% of the variance in students' alienation scores. This raises the first three of the following important questions:

(i) Were there any weaknesses in the School Description Inventory which may have increased the randomness of the items, thereby reducing the scale's contribution to variance?

(ii) What other factors contribute to school alienation? The fact that Anderson explained only a small amount of variance suggests that other factors may be operating. The investigation of this aspect is of primary significance in this research.

(iii) Were responses to Anderson's scales distorted by acquiescent responding or by falsification on the part of the students?

(iv) What is the nature of school alienation among Canterbury fourth form students?

(v) What are the dimensions of the bureaucratic structure of the school as perceived by Canterbury fourth form students?

(vi) Do New Zealand and Canadian students differ significantly in their perceptions of school bureaucratization?

(vii) What is the prevalence of school alienation among the students selected as subjects for this research?

(viii) To what extent can this study contribute to the resolution of the empirical problems outlined in the review of literature?

Various other questions also emerge from examination of the alienation literature - for example: What is the relationship between school alienation and examination performance? Is school truancy more characteristic of alienated students than of non-alienated students? Does school alienation reach a peak at a certain age or form level? Do alienated students complete fewer years at high school than non-alienated students? and so on. The literature is rich with questions that research could address, but due to the limitations of time and scope this study focused on the issues listed above.

To turn, then, to a more detailed discussion of the questions initially raised:

(i) Anderson indicated (in personal correspondence) some concern about the difficulty of the reading level in the School Description Inventory. If this criticism is warranted - as close examination of the scale suggests - then this may well have produced random errors which could account for the scale's low contribution to variance of alienation. It is quite feasible that students may have found the items ambiguous, or they may have failed to understand some of them adequately. Consideration of this problem, along with the fact that a younger sample was selected for this research, clearly highlighted the need for substantial rewording of the School Description Inventory.

(ii) Perhaps the major issue, however, which emerges from Anderson's studies is the question as to <u>what other factors</u> contribute to variance in school alienation. Anderson asked ' "Are there characteristics of schools which have a bearing on the way students perform in school or how they feel

about school?" ' (1973, p.315) and his attempt to provide an answer to this question led him to investigate the nature of the bureaucratic structure of the school. Since this school characteristic only accounted for 4.6% of the variance in students' alienation scores, it is likely that other factors are operating. Consequently, this research proposed to identify the nature of 'other' influential factors and the ways in which they may relate to school alienation.

Apart from the work of Anderson, several other studies cited in the literature focus on school structure or characteristics - for example, instructional organisation, school climate, bureaucratic structure of the school, and so on. And another predominant notion in the literature is the idea that 'discrepancy' seems to be a crucial element in alienation (for example, the discrepancy between means and ends; Pulvino's (1970) conception of 'dissonance' between individual needs and environmental press; and so on). In this research the author attempted to 'merge' these major themes in order to investigate further the nature of the relationship between school alienation and school structure. This 'theoretical exploration' resulted in the formulation of a tentative hypothesis that the differing beliefs or feelings which students have about the functions of school may contribute to school alienation. Consequently this research focused on investigating the conflict (or 'discrepancy') that may exist between students' perceptions of what school <u>should</u> do for them as opposed to their perceptions of the functions that school <u>actually</u> fulfills. (Since this required an <u>evaluative</u> judgement as to the 'proper' functions of the school, the term 'values' rather than 'functions' is considered more appropriate.)

Surprisingly little empirical research has been devoted to an investigation of the values students hold <u>about school</u> (the work of Kniveton, 1963, 1971; Musgrove, 1966; Flanders *et al.*, 1968; Smithers

et al., 1974; and Woods, 1976 being of limited relevance). The secondary school can be viewed largely as an involuntary organisation which pupils are legally bound to attend - thus students are the 'consumers' of compulsory education. Nicolson (1969) has stressed the need to carry out research to discover what pupils think of their school and schooling; likewise Blishen (1969) claims that 'it is difficult to think of another sphere of social activity in which the opinions of the customer are so persistently overlooked.' To the extent that the school is an organisation consisting of a wide variety of individuals who are in an involuntary relationship to one another, then it is likely that conflicting aims, values, and expectations may coexist in the school. Thus the formal education system may not always meet the needs and expectations of the individuals it serves - a point which is highlighted in Pulvino and Hansen's (1972, p.70) comment that 'students enter school with need structures which will tend to influence, and in turn be influenced by, the school. The degree to which the student is influenced and the direction he eventually takes depends upon both his perceptions of the school environment and his reactions to environmental occurrences...If his needs are dissonant with his perceptions of the environment a negative reaction may occur that could be related to feelings of...alienation.'

Thus there is clearly a need to ascertain whether the school is a context in which a student may feel some degree of conflict or confusion with regard to the values he holds about school, and whether or not this conflict contributes to school alienation. For instance, Sorhaindo (1971) adopted a value-expectancy discrepancy approach to alienation and hypothesised that high discrepancies between values and the expectancies for them are related to alienation. Previously, in a study of college dropout, Pervin and Rubin (1967) had suggested that 'a lack of fit' between student characteristics and those of the college may well lead to

dissatisfaction with college and ultimate dropout. In similar vein Doshi (1969) identified lack of commitment to values and norms as a factor which contributed to student alienation (a view which would seem to illustrate an aspect of Mizruchi's theoretical discussion (in Horowitz, 1964, p.241) of the social sources of alienation). And more recently Long (1977) suggested that feelings of academic alienation are, in part at least, a function of students' perceptions and evaluations of the operations of the university (for example, its goal implementation). However this research dealt with the university - does a similar relationship apply in the secondary school?

Theoretically, the literature suggests the possibility of a conflict of values occurring within the school situation. It does not seem too far a step to move from Merton's theory concerning the discrepancy between socially prescribed values and the opportunity for achieving them, to considering the possibility of a perceived discrepancy between the individual's values and those of society (or any subsystem in which the individual is participating - for example, the school). As Finifter (1972, p.10) says: 'Two individuals with similar value positions may differ in their degree of alienation because of differences in the way they perceive social reality, but they might also differ in alienation levels on the basis of similar perceptions of social reality viewed from very different value positions'. From this one could infer that the student who can see no relationship between the values espoused by the school and those held by the student as relevant for his future may well become alienated from the school. Thus, theoretically at least, there is a likelihood that there may be a conflict between the values institutionalised in the school and those that are held by students. Norms guide behaviour, yet the motivation for following norms comes from underlying values - therefore any confusion (see, for example, Hobart, 1965, p.95)

or conflict of values can be expected to influence the student's behaviour and also the attitudes he has towards school. As Gorman has commented (1971, p.177): 'Alienation focuses on values...The alienated individual operates on value premises that are contrary to those of the society in which he operates;' clearly a parallel can be drawn between the 'alienated individual' and 'society' on the one hand, and the 'alienated student' and the 'school' on the other.

On the empirical level, Stinchcombe's (1964) study of rebellion in high school is rich with implications for the significance of values in students' manifestations of 'expressive alienation'. For Stinchcombe, high school rebellion involves a rejection of the goals and means of success which comprise the world of the school. Underlying the goals and aspirations that students set for themselves are the values they hold about what school can or should do for them; consequently any perceived discrepancy between goals and means is also likely to induce in the student some degree of conflict with regard to school-relevant values - a conflict between his perception of what the school <u>should</u> do for him, on the one hand, and what he perceives it as <u>actually</u> doing for him, on the other. It may be, then, that the concept of values provides a crucial link between the environment of the student and his attitudes towards, and performance in, school (as elaborated by Finlayson, 1973).

To the extent that human beings tend to bring their value commitments into their relationships with one another, the individual's perception of social reality is likely to be determined by his values. Therefore among high school students there is likely to be differential commitment to the values espoused by the school (and its staff) - this is largely the result of the fact that individuals go through different experiences, belong to different reference groups, have different social backgrounds, and so on, and may therefore construct a picture of social

reality which may well differ from that of others. Since individuals may differ in their perceptions, any one individual's perception of reality need not necessarily be an accurate one (that is, with regard to that held by the dominant group in society). This viewpoint is congruous with the phenomenological approach to social research introduced by Schutz. The phenomenological school of thought is primarily concerned with how people construct pictures or interpretations of social reality, and is therefore concerned with the individual's perceptions and descriptions of phenomena. It is argued that on the basis of the individual's social experiences, and the experiences and values of the reference group to which he belongs, an individual constructs his own image of what social reality is like. If his perceived view corresponds with that held by his reference group, then the individual tends to see his construction of social reality as being true, or absolute. It follows, then, that different subgroups in society may well create views of social reality which in fact differ from the one that is defined and sanctioned (both formally and informally) by the dominant group in society. Drawing a parallel with the school situation, it can be seen then that the student's perception of school (social reality) may differ from the institutionalised or official conceptions of the nature and purpose of the school. In studying conflict of values, it seemed therefore that the phenomenological approach is especially appropriate since the focus of concern is on what the adolescent perceives to be the situation, rather than on what actually happens. An individual's perception, therefore, is a function both of the perceiver (see, for example, Abercrombie's (1966) discussion of the ways in which individual and social expectations influence perception) and of the perceived situation; and further, this perception may be accurate or inaccurate. The justification for studying individuals' perceptions rests primarily on the fact that to understand or explain behaviour one must take

into account the actor's perception of a particular situation. As Punch (1969, p.47) comments: 'People act in terms of the way they see situations, not as they "in fact" are, not as they are seen by the researcher.'

The phenomenological approach was also adopted by Anderson in that he focused on the students' and teachers' perceptions of school bureaucratization. However, it will be recalled that on the basis of these perceptions he then indexed schools according to the extent to which they were bureaucratically organised. In doing this, he utilised 'perceptions' as an 'actual' measure of school bureaucratization. And it is at this point that the author departs from Anderson, since to assume that perceptions are an accurate description of social reality lacks validity and is incongruous with the phenomenological approach adopted in this study.

Conflict of values, then provides one area for further investigation. Another is that of achievement motivation. Several studies (for example, McClelland *et al.*, 1953) have shown that achievement motivation improves performance and learning. Rosen (1956) found that the strength of the "achievement motive" varies according to social class, and later Crockett (1962), in investigating the relationship between achievement motivation and mobility, found that achievement motivation is an important personality factor relating to occupational mobility. However Straus (1962) looked at achievement among high school students and found not only that deferred gratification was related to achievement but that this relationship existed independently of socioeconomic status and intelligence. More recently, Harper (1973) investigated the effects of participation in a structured programme of achievement motivation on perceived alienated secondary school students. The differences between the experimental and control groups were not significant, although the

changes in the subjects' scores were in the direction predicted (that is, toward greater achievement imagery and greater internal control). Taking into account this research, and particularly the latter study which focused specifically on achievement motivation and alienation, it seems important that a measure of achievement motivation be included in this research. Smith (1973) has pointed out that experimental findings may be misleading unless the experimenter controls for the effects of achievement motivation - he comments: 'It is possible that unsuspected differences in the underlying achievement motivation of groups of experimental subjects could lead an unwary experimenter to conclude that differences are present in other functions when, in fact, there are none. It is also possible that true differences in other functions are not detected because they are masked by differences in achievement motivation which have contributed excessively to an error-variance term' (1973, p.137).

If one also takes into account the competitiveness which is inherent in the school situation (and especially bearing in mind Marx's concern with the relationship between alienation and competitive society) then this would seem to provide further justification for including a measure of achievement motivation in this research. For the school is undoubtedly an arena of competence and a means to higher social and occupational status. Furthermore, some children are more ambitious than others, and since ambition is related to school attainment it is likely to be an influential factor - given that the school is an institution which fosters excellence and attainment. Therefore since achievement motivation influences a student's performance in (and possibly subsequent attitudes toward) the school, it may be an important factor influencing school alienation.

Other factors which may perhaps contribute to school alienation include occupational aspirations and expectations, and family 'organisation'. With regard to the former, Burbach (1972) found that

there was a negative relationship between aspirations for tertiary education and three dimensions of powerlessness - a relationship which he interpreted as indicating 'that with increased interest in attending college there is a corresponding tendency in high school students to feel that they can exert greater influence in the control of their high school and their society as well' (p.352). Also, one must bear in mind the intimate relationship that exists between goals, values, and aspirations. Wilson (1973) has highlighted the concern in sociology as regards the relationship between alienation and aspirations, and several other studies have addressed this problem. For example, Meier and Bell (1959) claimed that anomie results when individuals lack access to the means for achievement of life goals or values. Han (1969) viewed aspirations as an index of success and then looked at the discrepancy that may exist between aspirational wishes (the ideal) on the one hand, and aspirational expectations (the limits which are imposed by one's life situation) on the other. Thus the discrepancy between the two becomes a measure of strain within individuals who share the same abstract values. Clearly one can draw a parallel here, in that pupils belong to the same subsystem of society (the school) and are likely therefore to share similar abstract values (success, for example). Wilson (1973) was concerned with the discrepancy between aspirations and expectations, and from his study concluded that the discrepancy between aspirations and expectations (which he limited to the 'educational' sphere) is a structurally induced strain which can be a source of alienation for high school students. Obviously, then, there is a need to obtain a measure of aspirations and expectations - however in this research the focus will be on <u>occupational</u> aspirations and expectations since the discrepancy between the two is likely to be of further informational value in that it is indicative of upward or downward mobility.

The other factor mentioned previously was that of family 'organisation'. Flumen (1974) included a measure of family 'disorganisation' in his research, and Seeman (1975) cites other relevant studies - for example, the findings of Renshon (1974) and Goodwin (1972) indicate an association between parents' and children's control attitudes. Bronfenbrenner (1972, 1973) is also concerned with the dramatic changes taking place in the family (and by 'nuclear' family he means a family which has one or both parents) and, in an article which probes the roots of alienation, he comments that: 'the crux of the problem...is that many parents have become powerless as forces in the lives of their children' (1972, p.25). On this basis it was decided to obtain additional information as to whether the adolescent lived with parent/s or not, and whether or not the mother was working.

This, then, concludes the major section regarding the identification of 'other' factors which might contribute to school alienation. Many of these additional variables are best handled as control variables - this will be specified in more detail when the statistical design of the study is described.

(iii) The third question was concerned with the possibility that Anderson's scales may have been subject to falsification on the part of the respondents. This problem has already been indicated in the literature as being one which is common to most alienation studies. The rewording of the School Description Inventory would help alleviate this to some extent, as would the guarantee of anonymity, and conveying to the students some degree of enthusiasm for the research (in the hope that they would treat the questionnaire honestly and seriously). However the incorporation of a series of 'check items', randomly interspersed throughout all sections of the questionnaire, would provide the researcher with some indication as to whether students made acquiescent, random, or false responses.

The inclusion of such items is of considerable importance, and the fact that Anderson failed to do this points to a weakness in his research design.

(iv) A major purpose of this research was to investigate the nature of school alienation among Canterbury fourth form students - in other words, do Anderson's findings apply in New Zealand (specifically, Canterbury) secondary schools? In view of the theoretical framework within which Anderson's alienation scale was developed, it is assumed that similar results will emerge in terms of the five dimensions of school alienation outlined by Anderson (especially since only minor modifications would be made to the scale in order to remove American expressions from it and thus make it more suitable for use in New Zealand). This aspect of the research is of undoubted significance in that there has, as yet, been no other research on student alienation from the New Zealand secondary school.

(v) Given that the School Description Inventory requires substantial revision, it is likely that responses to the scale may vary somewhat from those obtained by Anderson. However the intention in revising the scale was not to add additional dimensions but rather to restructure the questions already in the scale in order to make the reading level appropriate for New Zealand fourth form students. Therefore it is assumed that analysis of the responses would indicate that the scale is composed of the six dimensions outlined by Anderson.

(vi) It is commonly believed, and argued by overseas visitors, that schools in New Zealand are more formally organised than those in America. For example, Jackson (1974) has commented on the 'compartmentalisation' of New Zealand secondary schools with regard to subject matter. Although it is a relatively minor concern of this research, the author was interested in possible differences between New Zealand and Canadian students'

perceptions of school bureaucratization. However it is realised that the revision of the School Description Inventory for this study may place limitations on the extent to which such a comparison can be validly made.

(vii) Due to the lack of research on school alienation in New Zealand, it is difficult to make a hypothesis as to its prevalence among fourth formers. However it has been claimed that the incidence of truancy is more pronounced among fourth formers - particularly if they are Maori, and/or less academically able ('Tonight at 9', television documentary, 27/7/76). Also of relevance to this question is the fact that fourth form students are typically very near to school-leaving age, and it may be that school alienation is particularly pronounced at this period (although this question could only be resolved by longitudinal research). A further fact which may have some bearing on this matter though is the claim (The Press, 15/9/76) that absenteeism drops dramatically in the sixth and seventh forms. In addition, the generalisation is frequently made by teachers that fourth formers present more behavioural and management problems than students in other forms. On these grounds it is likely that the incidence of school alienation among fourth form students may exceed that expected by chance.

(viii) Finally, the question was raised as to the contribution this research might make towards the resolution of the problems outlined in the empirical section of the literature review. In this respect it can be said that: on the basis of the literature, the assumption is made that alienation has a useful meaning for sociological research, particularly when a context-specific approach is incorporated into the research design; the approach adopted is primarily sociological rather than psychological; and the utilisation of the phenomenological framework enables the author to investigate school alienation from a 'value-free' perspective.

Hypotheses. The elaboration of the questions posed at the beginning of this chapter leads to the following general experimental hypotheses with which this research is concerned:

Hypothesis 1: Factor analysis of fourth form students' responses to the alienation measure will indicate the presence of the five dimensions of alienation as postulated by Seeman (1959) and identified by Anderson in Grade ten Canadian high school pupils.

Hypothesis 2: These five dimensions of alienation can be subsumed under a single, integrating, second-order factor identifiable as School Alienation.

Hypothesis 3: Factor analysis of the students' responses to the school bureaucratization measure will indicate the presence of the six dimensions of bureaucratic structure postulated by Hall (1961) and later identified by Anderson in a sample of Canadian high school students.

Hypothesis 4: These six dimensions of school bureaucratization can be subsumed under two second-order factors identifiable as Status Maintenance and Behaviour Control.

Hypothesis 5: That a major factor contributing to variance in school alienation is a conflict of values perceived by students with regard to the appropriate functions of the secondary school.

Hypothesis 6: That this factor, which will be called Conflict of Values, will have four major dimensions corresponding to the functions of the school as perceived by students. These dimensions will be identifiable as representing the

vocational, intellectual, social, and personal functions of the school.**

Hypothesis 7: That these four dimensions are subfactors of an essentially unitary syndrome.

Hypothesis 8: That differences in the achievement motivation of fourth form students is indicative of school alienation.

Hypothesis 9: With control variables held constant, students' perceptions of school bureaucratization contribute to variance in school alienation.

Hypothesis 10: That the bureaucratic nature of the school as perceived by New Zealand students will be more strongly indicative of school alienation than was the case with Canadian high school students.

Hypothesis 11: That the prevalence of school alienation among Canterbury fourth form students is greater than that which could be expected by chance alone.

** From the New Zealand literature concerning the aims and functions of the secondary school, four major aspects or components were identified: vocational, intellectual, social, and personal. It is considered more appropriate, however, to elaborate on the development of this scale, and its theoretical and empirical bases, in the next chapter.

CHAPTER IV

DEVELOPMENT OF THE INSTRUMENTS

I. THE ALIENATION SCALE

For the purposes of this research, school alienation was broadly defined as an incompatibility between the student and the school, which may result in an estrangement from the student's nature, his needs, his school activities, and the school institution. (To this extent, then, alienation is defined 'subjectively' rather than 'objectively' - that is, the focus is on the student's feelings and perceptions and therefore the only appropriate definition of school alienation is one which incorporates the personal standpoint of the student.) Operationally, alienation can be defined in terms of the five dimensions initially postulated by Seeman and later outlined by Anderson. In adopting a context-specific, phenomenological approach, the five dimensions of school alienation can be specified as follows:

Powerlessness: refers to the student's expectancy that he cannot determine or control the outcomes, reinforcements or satisfactions which he seeks in the school situation. The student feels that he has little, if any, influence with regard to the way school is run.

Meaninglessness: the student who experiences strong feelings of meaninglessness does not expect to be able to make satisfactory predictions about the future outcomes of his behaviour in the school situation. The student lacks understanding of his school activities and cannot relate them to his future career and life.

Misfeasance (which is similar to Seeman's normlessness): refers to

the fact that the student expects that he will have to use means that are prohibited, or disapproved of, by the school if he is to attain the goals he desires.

Futility (which is similar to Seeman's isolation): The student who experiences a sense of futility is one who assigns little, if any, reward value to the objectives and beliefs that are typically highly valued by the school.

Self-estrangement: refers to the fact that the student derives little satisfaction or enjoyment from taking part in school and school-related activities. The student's participation is based primarily on future anticipated rewards, as opposed to the rewards which are inherent in participation.

Anderson designed items for each of these dimensions - five items for Powerlessness; nine for Meaninglessness; eight for Misfeasance; twelve for Self-estrangement; and four for Futility of extra-curricular activities. (Image analysis of the responses to the alienation measure resulted in six items, which had loadings of less than .24, being dropped from the scale - hence, in the final version of Anderson's School Expectations Inventory, the Futility dimension of school alienation was restricted to Futility of extra-curricular activities.)

The School Expectations Inventory, then, consisted of 38 Likert-type items. Taking into consideration the construct validity of the scale, its face validity, and Anderson's validation by the known group method, and also bearing in mind the utility of comparability with overseas studies, it was decided to retain the School Expectations Inventory as a measure of the dependent variable school alienation. Only minimal adjustments were made to a few of the items and these adjustments were designed to make the 'Meaninglessness' dimension more distinct; to make the scale more appropriate for fourth form students by removing difficult terms from the items; and finally to make the scale amenable for use in

New Zealand. The instructions for the scale largely followed the lines of Anderson, although they were simplified in order to cater for the reading level of fourth form students. An example of a completed response was included to further clarify the task for the students, and finally a check item was randomly introduced into the scale in order to guard against falsification and acquiescent responding. (The check items will be discussed more fully at a later point in this chapter.)

The final, adjusted version of the alienation measure consisted of 40 items, one of which was a completed example, and another served as a check item. Fourteen items in the scale were reverse-scored. The responses available were: Strongly Agree, Agree, Uncertain, Disagree, and Strongly Disagree. The instructions were self-explanatory and students were required to indicate their response to each item by placing a tick in the appropriate box. Possible scores ranged from 5 for Strongly Agree, through to 1 for Strongly Disagree (unless, of course, items were reverse-scored).

II. THE BUREAUCRATIZATION SCALE

The School Description Inventory was in need of substantial revision, as has been indicated in the previous chapter. The Inventory had consisted of 34 items, of which fourteen measured Rules and Regulations; six measured Hierarchy of Authority; five measured Centralization of Control; four measured Technical Competence; three measured Impersonality; and two measured Subject Matter Specialisation. School bureaucratization primarily refers to the nature of the formal organisational structure of the school and, following the lines of Hall (1961), Anderson had produced a set of items measuring students' perceptions of the following six dimensions of school bureaucratic structure (each of which is defined in terms of a highly bureaucratic school):

Subject Matter Specialisation: refers to the fact that the school offers students a restricted choice of subjects to study if they so desire, rather than offering them the opportunity of taking a wide variety of different subjects.

Hierarchy of Authority: The school has a clearly defined system of super- and sub-ordination, such that each level of the hierarchy owes obedience to, and is under the supervision of, those above them in the hierarchy. For example, students are at the low level of the hierarchy and are consequently subordinate to prefects, teachers, the principal, and so on.

Rules and Regulations: The school has a clearly defined, and sanctioned, set of rules with regard to what students may and may not do while they are at school.

Technical Competence: means that the school promotes and rewards students on the basis of their performance and ability, rather than in terms of individual needs, preferences, and so on. Essentially, this means that promotion is determined on objective rather than subjective grounds.

Centralization of Control: is a separate dimension that Anderson (via factor analysis) found was contained within the Hierarchy of Authority dimension. Essentially Centralization of Control means that some central authority in the school attempts to control the behaviour of subordinates. Consequently school authorities can exert a substantial degree of control over the students, and their actions and decisions.

Impersonality: refers to the fact that relationships between students and teachers at the school are of a formal and impersonal nature.

In revising the scale, several items were eliminated and most of the items were reworded. However considerable care was taken to ensure that the items did not diverge from the factors identified by Anderson.

A major criticism of Anderson's school bureaucratization measure, and one which emerges from the phenomenological approach adopted in this study, lies in the fact that the wording of the Rules and Regulations and the Subject Matter Specialisation items is essentially inadequate as a measure of students' perceptions of school bureaucratization. Perhaps this weakness in the School Description Inventory is more clearly illustrated by considering examples of the original items in each of these dimensions:

Subject Matter Specialisation: 'I take a large number of different courses'

Rules and Regulations: 'I follow school rules which regulate my attendance'.

Subjects are required to indicate what their school is like by ticking the appropriate response - responses ranged (on a five point scale) from Strongly Agree to Strongly Disagree. However, when the subject responds to items such as the above he is really making a statement about whether or not he actually takes a large number of courses, or actually obeys the school rules concerning school attendance. The author would argue that this type of response (which essentially reports what the student does, in fact, do) is irrelevant. That is, it is irrelevant in that the actual response the student makes may have little to do with his attitudes or perceptions. The main point at issue is the student's perception of what school is like, and this must be distinguished from the actual school situation. The author would argue, then, that Anderson's wording in the two Subject Matter Specialisation items and in the fourteen Rules and Regulations items is a measure of the actual situation, and not a measure of students' perceptions of the situation. Therefore these items were reworded in such a way as to obtain an indication of the students' perceptions of the existence of rules and of the opportunity for taking a

variety of subjects. Examples of the revised version of the items cited above clearly depicts this substantial clarification:

Subject Matter Specialisation: '*If I wanted to, I could* choose from a large number of different subjects in this school'

Rules and Regulations: '*I'm supposed to obey* school rules about having to come to school regularly'.

This type of revision was made in all items measuring Subject Matter Specialisation and Rules and Regulations. The criticism was not applicable to the other dimensions.

Apart from revising items in order to make them consistent with the phenomenological orientation, items were also revised in terms of simplifying the reading level so that it would be more appropriate for fourth form students. Likewise, the instruction format - while basically following that outlined by Anderson - was simplified where possible. Again a completed example was included in the scale to help clarify the nature of the task, and a check item was incorporated to control for falsification. Any distinctly American expressions were replaced with ones appropriate for New Zealand students, and four items were dropped on the grounds that they were either ambiguous or only meaningful to the American student. It was considered that the omission of these items would not significantly decrease the effectiveness of the scale since they were taken from a dimension (that of Rules and Regulations) which already comprised a large number of items.

The final version of the revised School Description Inventory consisted of 32 Likert-type items, one of which was a completed example, one was a check item, and four items were reverse-scored. The number of items measuring each dimension was the same as indicated earlier, with the exception that the rules and regulations dimension now consisted of ten

items instead of the original fourteen. The directions were self-explanatory, and the response format was the same as that for the alienation measure where subjects were required to tick the appropriate box (responses ranging as before from Strongly Agree through to Strongly Disagree). Possible scores ranged from 5 for Strongly Agree, through to 1 for Strongly Disagree (with the exception of those items which were reverse-scored).

III. THE CONFLICT OF VALUES SCALE

This scale was developed specifically for this research, and derives from both theoretical and empirical approaches to instrument design. Analysis of the relevant literature on the functions of the New Zealand secondary school yielded a wealth of theoretical discussion of school objectives but relatively little clear delineation of the specific functions of the secondary school (although recently writers have contributed some much needed specification in this area). Perhaps the most general definition of the purposes of the school, and one which became widely accepted, was that proposed by Fraser in 1939 when he stated that 'The Government's objective, broadly expressed, is that every person, whatever his level of academic ability, whether he be rich or poor, whether he live in town or country, has a right, as a citizen, to a free education of the kind for which he is best fitted and to the fullest extent of his powers' (in Shallcrass, 1970, p.122). However this statement was directed at the entire school system. A more specific approach was adopted in the Thomas Report (1944) on the post-primary school curriculum. This report specified various objectives of the secondary school, yet the essence of them all is essentially captured in the report's initial statement of objectives - namely: '...that all post-primary pupils, irrespective of their varying abilities and their varying occupational ambitions, receive

a generous and well-balanced education. Such an education would aim, firstly, at the full development of the adolescent as a person; and, secondly, at preparing him for an active place in our New Zealand society as a worker, neighbour, homemaker, and citizen' (in Robinson and O'Rourke, 1973, p.176). This definition clearly points out the personal, social and vocational functions of the secondary school. Although the intellectual function of the school is implicit in this definition, it is emphasised even more strongly in the report of the Currie Commission on Education (1962) which acknowledges that although the school is concerned with the total development of the student, nevertheless 'there cannot be much doubt that the intellectual development of each pupil to his full capacity is still the primary, even though it is not now the sole, purpose of New Zealand schools' (1962, p.21).

More recently, Robinson (1974) has claimed that school objectives tend to fall into four major categories which he termed intellectual, social, personal and practical, and this typology is reflected in Stewart *et al.*'s (1976) survey of secondary school students' opinions about the tasks or functions of the secondary school. However undoubtedly the most comprehensive consideration of the aims of New Zealand education is that prepared for the Advisory Council on Educational Planning (1972). In this report various educational aims, together with their implications for the individual and for society, are discussed - for example, the function education fulfils in the personal development of the individual and in his adjustment to New Zealand society (which demands not only knowledge about our society but also requires the acquisition of certain social attitudes, learning about the duties and responsibilities of citizenship, knowledge of the norms (both formal and informal) of society, and so on). Furthermore, if the school is to help the individual to adapt to society, then it must equip him with vocational skills, prepare him for future

learning, equip him with social and communication skills, and provide many of the physical, social and intellectual experiences that are prerequisites for the fulfilment of the individual's potential. However, as the report notes, 'it is obvious that the education system cannot accomplish all of these, nor is it necessary for it to do so, since many other agencies... all contribute' (p.16). In addition to these aims, one can also take into account the custodial, selective, political, and economic functions of education, the promotion of social change, maintenance of social cohesion, and so on (see, for example, Musgrave (1965) and Morrish (1972)).

In analysing the functions of education with a view to developing a school values scale for secondary school students, it is important to bear in mind that (a) functions may be manifest or latent, and (b) students may not necessarily acknowledge as such all the functions of the secondary school. Thus the functions one derives from an analysis of the literature need not all be relevant for the secondary school student. This led the investigator to a more careful consideration of the question as to which school functions would be perceived as relevant, or meaningful, ones by fourth form students. The literature previously cited had provided some insights (especially the work of Stewart *et al.*, and the report prepared for the Advisory Council on Educational Planning) and further direction was provided by Barton's (1976) discussion of the justificational purposes which might serve as a guideline for the development of a sixth form chemistry curriculum. Barton isolated three main components of purpose - namely:

(a) 'Development of Mind' which is concerned with the value a subject has as a form of knowledge;

(b) 'Prevocational Training' which revolves around the vocational relevance of a subject and incorporates the qualification or examination aspect; and

(c) 'Public Scientific Awareness' which was re-labelled as 'Cultural Significance' and essentially refers to the range of interest that a subject might evoke.

While Barton's research was of much asssistance in providing insights into the functions of the school that could be meaningful for secondary school students, his research was primarily directed at sixth form students. Thus the question regarding which functions of the school would be of relevance to fourth form students still remained largely unanswered.

However this issue was resolved by taking an empirical approach in an effort to obtain fourth form students' opinions about the functions of the school. An essay topic was designed which required students to outline their beliefs about what school was for, with reference not only to their own personal needs and expectations but also taking into consideration the possibly different needs and abilities of their fellow students. One hundred and thirty-three fourth form students from two high schools participated in this initial pilot study, and their essays provided valuable insights into students' views of the functions of the secondary school.

On the basis of the review of the literature and examination of the essays, four primary categories emerged which were regarded as the main components comprising fourth form students' perceptions of the functions of the school. These categories may be defined as follows:

Vocational: This function of the school highlights the role it performs in equipping the student with the skills that will be necessary for later vocations. It also encompasses the provision of qualifications (via examinations) and the opportunity for the student to obtain career information and advice from the school.

Intellectual: This aspect is primarily concerned with the function the school fulfils in the transmission of knowledge, the development of basic tool skills and also the more intellectual skills (such as problem-

solving techniques, evaluation skills, and so on) that are essential to the learning process. Also included in this category is the preparation of the student for lifelong learning, which requires fostering in students a favourable, positive attitude towards learning.

Social: This function of the school refers to the necessity of providing students with the opportunity for participating in various types of social interaction, and enabling the student to develop as an effective 'social' being - implicit in this function is the development of the social skills of communication and co-operation, and also the encouragement of certain social attitudes (such as loyalty and concern). Finally, this function also refers to the transmission of knowledge about the student's culture and national values.

Personal: Although this category may overlap somewhat with the previous ones, this area was nevertheless considered to be a separate category in that the school does fulfil a 'personal' function to the extent that it promotes the personal adjustment and maturity of the student, and is concerned with developing or unfolding the potential of the student as an individual.

These four categories, then, were considered to be representative of the functions of the secondary school as perceived by fourth form students.

Construction of the Conflict of Values Scale

A set of items was designed which covered the various components integral to the four categories described above. Perhaps the major problem confronted in designing the items was that of the wording of the statements. Bearing in mind that the sample of fourth form students would comprise a wide variety of students as regards ability, attitude towards school, and so on, it was essential that the items be clear, specific, unambiguous, and 'appealing' to all students (particularly to those who might be alienated

from school, or who might be anxious about the task of completing a questionnaire). To ensure that the student's response was influenced by the content rather than by the structure of the item, considerable care was taken to make certain that the wording was neutral (as opposed to academic), colloquial where appropriate, and typical of a reading level that could be readily understood by all students. Also, care was taken to avoid any association between an item and a specific school subject, since the focus of concern was alienation from the school as an institution, rather than from any particular aspect of the school (for example, subject matter, or staff). In the interests of clarity it was important that the items be as distinct as possible with regard to the category they represented. And finally, since the scale was concerned with values, the item stems were designed in such a way as to incorporate an evaluative orientation.

In all, 60 items were designed to measure each aspect of the four categories described, and in order to determine whether or not the conflict of values items overlapped with those in the alienation and bureaucracy measures, a second pilot study was carried out. For this pilot research, the total pool of items was divided into four scales, as follows:

Form AA: consisted of the A version of the values scale with two check items, plus the alienation scale also with two check items. Total number of items in this version of the scales was 72.

Form BA: consisted of the B version of the values scale and two check items, plus the alienation scale and two check items. A total of 72 items.

Form BB: consisted of the B version of the values scale and two check items, plus the bureaucracy scale and two check items. A total of 64 items.

Form AB: consisted of the A version of the values scale with two check items, plus the bureaucracy scale and two check items. A total of 64 items.

One hundred and seventy-seven fourth form students from one Christchurch secondary school were each administered one version of the scales, along with an instruction sheet, and a category sheet. The category sheet included definitions of the dimensions involved in each of the scales (eleven for the bureaucracy and values combinations, and ten for the alienation and values combinations) and subjects were required to match each item with the appropriate definition. Subsequently, the Chi-Square test (with Yates' correction) was carried out on the responses in order to calculate the accuracy in categorising each item. This enabled the author to obtain an indication of the distinctiveness of each item in the scales, and to determine whether or not there was any serious degree of overlap between the measures. In general, only those items which reached the 5% level of significance were retained. Three items in the values scale which failed to reach significance were dropped, while a few others were subsequently adjusted and improved. Items which failed to reach significance with regard to subscale distinctiveness but which were significantly discriminatory in terms of the whole values scale were retained. Analysis of the alienation and bureaucracy scales resulted in a few of the items being subsequently improved. Some items in the alienation measure indicated a degree of confusion, and this was judged to be largely due to the difficult wording of the items. However these items were adjusted and retained, as the author did not want to make more than minimal changes to the criterion alienation scale (also one must bear in mind that a categorising task of this nature was quite a difficult one for fourth form students; therefore the items were treated relatively leniently in the analysis).

This second pilot test enabled many of the items to be improved and sharpened, and, as a result, all the alienation and bureaucracy items, plus 57 of the values items were incorporated in the third pilot study which

consisted of carrying out a factor analysis on the values items, and obtaining estimates of the reliability of each of the measures. As a result of this study (which involved 373 fourth formers from four high schools) any items which factor analysis and examination of the response distributions suggested were ambiguous, difficult, or else not really meaningful for students at fourth form level, were dropped. This pilot study also indicated whether or not the response format and instructions clearly depicted the nature of the task for students, and also provided information as to whether the final version of the scale could be completed by students within a limited time period (1 hour).

On the basis of this third pilot study, sixteen values items were dropped. The final version of the conflict of values scale consequently consisted of 38 items, one of which was a completed example, and another served as a check item. The items were spread over the four categories as follows: Vocational - eight items; Intellectual - nine items; Social - ten items; and Personal - nine items. The response format for the final version of the scale was the same as that used in the third pilot study - that is:

(i) Subjects were required to indicate how they felt about each statement by ticking the appropriate box (the responses available being: Very Good, Good, Average, Bad, Very Bad). This was considered to be an indication of the value the student ascribes to the idea presented, and hence was regarded as being a measure of the values the student holds with regard to the perceived functions or objectives of the secondary school.

(ii) The student was then required to indicate the extent to which he perceived that idea as being put into practice at his school. (Again, however, it must be emphasised that the focus of concern is on the student's perception of the situation which may, or may not, be an accurate representation of reality.) This, then, was a measure of the value that

the school is perceived to ascribe to that idea - whereas the first measure was essentially an indication of student values. In determining the extent to which his school features, or is characterised by, the idea contained in each statement, the student was required to tick one of the following responses: Exactly Same, Quite Similar, A Bit Like It, Rather Different, and Very Different.

Possible scores ranged from 5 (for Very Good, and Exactly Same) through to 1 (for Very Bad, and Very Different). The student's score on (ii) was subtracted from that on (i), thus yielding a difference score which was regarded as being a measure of conflict. Possible conflict scores ranged from 4 through to 0. As with the other measures, the instructions were worded as clearly and as simply as possible, and an example response and a check item were included in the scale. (Please refer to Appendix E, where the instrument used in the major part of the study is presented.)

IV. THE ACHIEVEMENT MOTIVATION SCALE

An established measure of achievement motivation is that based on the Thematic Apperception Test (TAT) whereby subjects are required to write imaginative stories in response to either verbal or visual cues. As McClelland *et al.* (1953, p.194) point out, the assumption underlying this method of measuring achievement motivation is that '...the thought processes of an individual are in part determined by his present state of motivation and that in complying with a request to write imaginative stories, he reveals the content of his dominant thoughts at the time of writing and hence, indirectly, his state of motivation'. The scoring of the subjects' stories derives from classifying the various elements in the response according to relatively objective criteria - namely, the degree to which they reflect 'Achievement Imagery' (which is indicated by any one of

four conditions - competition with a standard of excellence, meeting self-imposed requirements of good performance, unique accomplishment, and long-term involvement); 'Doubtful Imagery' (in which stories make some reference to achievement but nevertheless fail to meet the condition/s for Achievement Imagery); and, finally, 'Unrelated Imagery' (which indicates that the story does not make any reference at all to an achievement goal and thus is not scored further). Changes in the content of these imaginative stores may be manipulated experimentally, according to the extent to which the experimenter attempts to arouse achievement motivation. By varying the instructions given to subjects with regard to the writing of the stories, the experimenter may induce any of three possible conditions:

(a) The Relaxed Condition, in which the experimenter attempts to create an informal atmosphere, and gives the impression that little importance is attached to the tasks that the subjects are about to perform. Every attempt is made to minimise any achievement-related cues in the instructions;

(b) The Neutral Condition refers to one in which the experimenter neither makes any real effort to decrease the importance of the situation (as in the previous condition) nor does he try to increase the intensity of motivation. Thus it was anticipated that under 'neutral' conditions a relatively 'normal' measure of achievement motivation could be obtained; and

(c) The Achievement-Oriented Condition which is one in which the experimenter makes every effort to introduce additional achievement-related cues, thereby intensifying motivation - for example, subjects are told that the task involves creative intelligence, and they are urged to do their best.

This, then, basically describes what is involved in the TAT projective measure of achievement motivation (for further details, see

Lowell (1952); McClelland *et al.* (1953); McClelland (1955, 1961); and Manthei (1972, 1975)). This projective approach to measuring achievement motivation does have advantages - the task the subject is required to perform is relatively unstructured; the procedure largely disguises the intent of the tester and the interpretation that will be made of the subjects' responses; and exponents of this type of approach regard the projective technique as being very effective in eliciting latent, unconscious aspects of the personality - but there are also disadvantages which must be taken into account. In this respect McClelland *et al.* (1953) and Manthei (1975) clearly illustrate the effect that various factors (such as the internal set an individual has developed over the years, situational cues which are specific to the experimental situation, cues of everyday life, and so on) may have in influencing the subsequent achievement motivation score. In addition to this, the projective measure is an expensive one in terms of the time required both for testing and also for subsequent scoring.

With these considerations in mind, the author favoured a measure of achievement motivation which would demand much less of the subjects' time. (Since the student questionnaire was already a relatively long one, it was decided that a 'quick' measure of achievement motivation would remove the necessity of asking schools for additional 'testing' time.) Such a test had evolved from the work of Marjorie Manthei (1972) who developed a forced-choice measure of achievement motivation. Her measure was largely based on the distinction between male (or 'instrumental') and female (or 'expressive') orientations as elaborated by Parsons and Bales (1956). Manthei (1972, p.22) describes the distinction between these orientations as being '...one of function, the instrumental function being one of external affairs and the expressive of internal, interpersonal affairs'. A forced-choice questionnnaire was subsequently developed and

was designed to reflect this distinction. Appropriate statements were selected from the Edwards Personal Preference Schedule, with achievement motivation items emphasising competition, accomplishment of tasks and occupational goals, and the nurturance items largely focussing on interpersonal relationships and social, co-operative activities. The statements were then equated for social desirability, for both sexes, and the resulting pairs formed the forced-choice questionnaire. Thus there was a separate questionnnaire for boys and girls.

Although this type of measure of achievement motivation has been subject to criticism, Manthei nevertheless found that there was a relationship between scores obtained on the TAT measure and those obtained on the forced-choice questionnaire. This relationship was significant for males ($p < 0.05$), but not for females ($p < 0.10$). The non-significant relationship for females perhaps illustrates the failure of research to provide an understanding of female achievement motivation.

Manthei's forced-choice measure was considered to have many advantages which would justify its selection as the measure of achievement motivation to be used in this research. It did bear a relationship (at least for males) to the TAT measure; it was brief and therefore required a relatively short period of time for completion; it was suitable for fourth form students; and was easy to administer since the directions were self-explanatory. In addition, data was obtained from another study (as yet unpublished) which utilised this instrument, and Spearman Brown split half reliabilities were calculated. These revealed values of 0.62 for fourth form girls ($N = 50$) and 0.58 for boys ($N = 50$). These values were considered to be acceptable, taking into account the fact that each test was comprised of only ten items.

Adjustments were made to some items in order to: (a) ensure that the reading level would be appropriate for fourth form students of varying

abilities; (b) force the student to distinguish, and subsequently choose, between the alternative statements offered; and (c) alter the arrangement of the questionnaire to avoid the problem of distributing separate versions for boys and girls. This was achieved by altering one of the pairs (the other seven being identical for boys and girls) and arranging the last two pairs in such a way that the boys responded to the pairs of statements in one column, and the girls to those in the other column. A completed example was included, and a check item was randomly incorporated into the measure.

However there was some concern as regards the extent to which there was a need to provide boys and girls with alternative versions of the last two pairs of statements. Hence, a pilot study was carried out, involving fourth form students from two single sex high schools, which was designed to provide information about the format of the questionnaire, the suitability of the reading level, and the necessity of providing alternative versions of these statements for boys and girls. A sample of students (comprising 50 boys and 65 girls) was required to respond to the complete achievement motivation measure (thus both male and female students answered both of the alternative forms of the last two pairs of statements). Analysis of their responses indicated that the sex-appropriate versions of the final two questions did not significantly differentiate between boys and girls in the sample. On this basis it was concluded that boys and girls could respond to the same pairs of items.

Thus, the revised, final version of the achievement motivation scale consisted of twelve pairs of items, one of which was a completed example and another served as a check item. Students were required to indicate their choice of item by putting a '1' in the box adjacent to the statement which was most preferred, and a '2' in the box beside the other member of the pair. Possible scores were: 3 for the achievement motivation item,

1 for choosing the nurturance item, and 2 if both items were ticked.

V. THE CHECK ITEMS

The problem of how to overcome possible distortion of the subjects' responses was an important one in this research. The possible contaminating influence of the 'acquiescent response set' (referring to the tendency on the part of subjects to agree rather than disagree with statements) has already been noted. Other possible sources of bias, or reasons for falsification, include the 'social desirability response set' (or the tendency of subjects to respond in a way which would be regarded as socially acceptable or favourable); overuse of one particular point on the scale when responding to items; and the tendency to avoid using the extremes of the responses available. Such sources of response distortion constitute a real problem for most attitude scales, and are of particular significance for the measures in this research in that (a) the emphasis is upon the subject's perceptions; (b) the information which the scales are designed to obtain is of a rather personal and 'sensitive' nature; and (c) the length of the questionnaire may in fact increase its susceptibility to the distorting influence of response sets. Tuckman (1972, p.190), for instance, comments that 'these troublesome tendencies on the part of respondents are strongest on long questionnaires, which may provoke fatigue and annoyance'.

Several measures were taken to establish some control over these potential sources of distortion. Care was taken to ensure that the wording of both the instructions and the items was as clear and unambiguous as possible. This was also facilitated by the inclusion of a completed example, and by arranging the format of the scales in such a way as to keep the respondent's mind on the task (for example, in the Conflict of Values scale an arrangement which would have shortened the items

considerably could have been achieved by placing one stem at the beginning of the scale, and then simply listing the various aspects of the functions of the school. However it was considered important that the task be as clearly defined as possible since subjects were only at the Form IV level, and also differed widely with regard to ability and so on. Hence an evaluative stem was incorporated in each item). The introduction to the questionnaire was designed to arouse as much enthusiasm for, and interest in, the task as possible, since it was anticipated that the degree of rapport thus established with the subjects, along with the guarantee of their anonymity, would augur well for 'truthful' responses. The purpose of the research was concealed both by the nature of the introductory remarks and also by the title of the questionnaire. The structure of the items was also conducive to minimising the possibility of response bias - for example, some items were positively orientated, while others were of a more negative nature.

In addition to the features of the questionnaire described above, check items were designed specifically for this study in order to establish a relatively objective criterion on which to base acceptance and rejection of scripts. The following four check items were inserted in the questionnaire:

'The principal of this school has more power than the students'
(Item 21 in the alienation scale);

'Most schools have rules which students are meant to follow'
(Item 15 in the bureaucratization scale);

'I like to feel free to do what I want to do'
'I like to keep my desk tidy at all times'
(Pair 6 in the achievement motivation scale); and

'There should be school on Saturdays and Sundays'
(Item 10 in the conflict of values scale).

These items were designed so that 'truthful' responses to them would necessarily take the form of: agreement in the case of the above alienation and bureaucratization check items; a preference for the first of the two alternatives in the above achievement motivation check item (although it was acknowledged that female students may possibly prefer the second alternative); and, in the case of the above conflict of values check item, that the idea suggested was a bad one and was not in operation at any particular secondary school. (However, given the very nature of this scale - its emphasis on values - it was conceded that some students may regard the idea presented in the check item as being a good one. But there was no room for inconsistency with regard to the second part of the response, since no school in the sample required student attendance at weekends.) These check items were tested in the pilot studies, and proved to be effective in identifying 'suspect' scripts.

Scripts which had all four, or three, check items correct were accepted; those which had only one or two correct were set aside for closer examination and, in the majority of cases, subsequently rejected; and those scripts which did not contain any correct check items were rejected.

VI. THE CONTROL VARIABLES

In the chapter concerning the formulation of the research problem, several additional variables were identified which were considered to be possible 'contributing' factors to school alienation. Bearing in mind the necessity that this study be a practical and feasible one, only a few of these extra contributing variables could be selected for closer study; furthermore, students will vary with regard to these variables and so it was considered that several of the additional variables would be more appropriately handled as control variables. Thus, in treating

these variables as control variables, any confounding effects they might have on the relationship(s) between the independent variables (perception of school bureaucratization, perceived conflict of values, and achievement motivation) and the dependent variable (school alienation) would be neutralised or cancelled out.

The control variables in this study which were measured in order to enable statistical control were: sex, family structure or 'organisation', working mother, age (which was used as an index of past success), membership in school organisations, membership in non-school organisations, occupational aspiration, occupational expectation, and socioeconomic status (see p.1 of questionnaire, Appendix E). The first three variables listed above are discrete, and can therefore be treated as dummy variables with '1' representing female sex, working mother, and 'living with both parents'. (In the case of measuring family structure, the four possible scores were condensed into two. That is, option four was merged with option one to represent 'both parents', since only a few students ticked the fourth option and it was assumed that these students could well be living with other family members. Likewise only a few students ticked option three and consequently this option was merged with the second one and represented 'solo parent'.) Membership of school and non-school organisations was measured on a scale ranging from zero to four. Occupational aspiration and expectation, and socioeconomic status (as indicated by father's occupation, or by the mother's occupation in cases where the father was absent) was measured on a scale ranging from one to six, according to the Elley and Irving socioeconomic index (1976). The measures of occupational aspiration and expectation were used in two ways: (a) they were kept separate, and (b) occupational expectation was subtracted from occupational aspiration to give a difference score which could be used as a measure of social mobility.

CHAPTER V

RELIABILITY AND VALIDITY OF THE INSTRUMENTS

I. RELIABILITY

The procedures for assessing the reliability of a measuring instrument fall into three main categories: test-retest reliability, alternate (or parallel) forms reliability, and internal consistency reliability. Taking into consideration the length of the measures (with the exception of the achievement motivation scale), the relative homogeneity of the items in each scale, the fact that the measures were not speeded (as was indicated by the very small percentage of students who failed to complete the questionnaire), and the practical difficulties involved in administering either two equivalent 'test' forms or the same instrument on two separate occasions, it was considered that an internal consistency coefficient would be the most appropriate estimate of reliability for each of the four measures. In order to obtain a split half estimate of reliability, the items in each scale were matched with regard to the equivalence of means, standard deviations, item content, difficulty, and length. After matching, items were randomly assigned to each half of the scale(s), and, by applying the Spearman-Brown formula, an estimate of the reliability of each scale, as derived from the correlation between its two half tests, was subsequently obtained. The results are summarised in Table 1.

TABLE 1

Correlations between the half tests of each scale, and Spearman-Brown coefficients of reliability (Split-half)

	Scale			
	Alienation	Bureaucratization	Conflict of values	Achievement motivation
Correlation between half tests: r_{12}	0.902	0.753	0.894	0.487
Spearman-Brown coefficient: $r_{(1+2)}$	0.949	0.859	0.944	0.655
Total number in sample: N =	379	379	379	379

II. VALIDITY

It has already been noted in the literature review (supra p.32) that the issue of validation is a problematic one for alienation studies. Furthermore, the phenomenological approach adopted in this research highlights another issue which is of some importance with regard to the validation problem. To draw the reader's attention again to previous chapters - and to chapter III in particular - it will be recalled that in terms of the phenomenological orientation, the objective accuracy of an individual's description of social reality is, in fact, largely irrelevant. Rather, it is the individual's subjective perceptions *per se* which are of primary significance. To this extent, then, one could possibly forward an argument which negates the necessity of validating the measures. However, it is considered 'conventional' to validate the instruments one uses - as Goode and Hatt (1952, p.237) comment: '...every scale, to be useful, must have some indication of validity'. With this in mind, then, the main approaches to validation of scales will be briefly outlined, followed by a consideration of the validity problem as it pertains to each of the four

measures involved in this research.

Typically, four main approaches to validation can be distinguished:

(i) The logical validation approach encompasses 'face validity' (which essentially refers to the fact that examination of the items indicates that the scale appears to measure what it has been designed to measure) and the more systematic 'content validity' (which is concerned with whether or not the items in the scale are representative of the universe of content). This type of validation is readily obtained by careful definition of terms and selection of items, and also by the use of factor analytic procedures (for example, examination of the anti-image covariance matrix in image analysis indicates whether or not items are indeed representative of the possible universe of items).

Criterion-related validation procedures lead to the categories of:

(ii) 'predictive' and

(iii) 'concurrent' validity.

Moser and Kalton (1971, p.356) describe these two categories as being '...essentially the same except that the former relates to future performance on the criterion whereas the latter relates to performance at approximately the same time that the scale is administered. Predictive validity is thus concerned with how well the scale can forecast a future criterion and concurrent validity with how well it can describe a present one'. These types of validity can typically be obtained by using such techniques as those of 'jury opinion' and 'known groups'.

(iv) 'Construct' validity is primarily concerned with the validation of theory. The measure of interest is used in testing various propositions which incorporate the concept and have already been validated to some extent; if they are confirmed then it is inferred that the measure has construct validity. Sjoberg and Nett (1968, p.303) clarify the nature of this type of validity in their statement that 'construct validity

involves relating one's measuring instrument to the overall theoretical structure in order to determine whether the instrument is logically tied to the concepts and theoretical assumptions that are employed'. Such validity can be determined, for instance, by factor analytic examination of the interrelationship of test items.

The School Alienation Scale

In considering the validation of the school alienation scale, it is relevant to make reference to Schacht's recent (1976) discussion of the distinction between subjective alienation (which he terms 'S-alienation' and uses to refer to the discord or psychological dissatisfaction people encounter in their perceptions of, feelings about, or attitudes toward, the various relationships and situations that they experience) and objective alienation (or 'O-alienation' which consists of various kinds of dysfunctions at the level of social relations and must necessarily be viewed in relation to social structure(s)). Therefore O-alienation is viewed as being essentially 'structure-relative' in character, while S-alienation is viewed as being 'perspective-relative' since the dissatisfactions experienced are intimately related to the perspective (beliefs, attitudes, desires, and so forth) from which the individual views and interprets them. Also S-alienations are 'perspective-relative' in the further sense that '...perceptions of the same situation may vary, and with them the relative satisfaction or dissatisfaction of those involved in relation to the situation' (Schacht, in Geyer and Schweitzer, 1976, p.142).

School alienation, as defined in this research, is considered to be an example of S-alienation - it is subjective, and integrated into a particular context (thus, since alienation is situationally specific, alienation from the school need not necessarily imply that the student is also alienated from society). With regard to the validation of the school

(or any) alienation scale, the methodological problems involved are bound to be complex since they inevitably demand accurate detection and measurement of states which are essentially psychological. Schacht (1976, p.146) expresses the problem extremely succinctly when he states that: '...in the case of S-alienations, questions of the validity, accuracy, justifiability, etc., of the perceptions and attitudes of the people under consideration are quite irrelevant. What matters is only that the designated psychological or experiential states obtain...It is only the reliability and accuracy of the social scientist's measures and descriptions of the psychological states of the subjects under investigation that matter here'.

Obviously this has implications for the type of validation that is necessary for the school alienation scale. The fact that one is dealing primarily with subjective alienation is of importance for researchers - but it is particularly significant for education. Subjective alienation will not necessarily issue into action: hence many school-alienated pupils are likely to withdraw and not participate in the school situation. It would, then, be extremely difficult to identify such 'S' cases of school alienation, especially when one takes into account the possibility of the student erecting effective defenses. However the two categories may overlap in that there is a relationship between 'S' and 'O' alienations, and if this relationship is substantial or persistent, in any instance, then it is possible that S-alienation may become manifest in terms of action. However objective action is typically a characteristic of O-alienation.

Given the need for accurate, reliable measures, it would seem that the 'optimal' approach to validation of the school alienation scale would be that of a criterion-related approach. It is very difficult to validate a measure of a 'subjective' state, although Anderson had been successful

in this respect in that he validated the scale by the 'known groups' method. However an even more satisfactory approach was designed for this study, whereby it was anticipated that the alienation scores of a group of subjects known to be alienated from school would be correlated with psychological assessments of their school alienation. Alienation scales were prepared for the subjects, and a rating scale developed for the psychologist which defined the five aspects of school alienation and established criteria for rating each student in terms of these aspects of alienation. It was considered that this method of establishing concurrent validity would be a powerful and effective attack on the 'thorny' problem of validation. However at a late stage the 'designated' school changed its mind and became unwilling to co-operate, and thus this validation study could not be carried out. This also ruled out the possibility of validating the scale by the 'known groups' method, whereby the alienation scores of known alienated subjects would have been correlated with those obtained on the scale by a group of very committed students.

However the school alienation scale does have construct validity since it is clearly related to a carefully delineated theoretical structure, and the scale has been used empirically and validated. It has logical or face validity, and also content validity (as indicated by the image analysis). Furthermore, another attempt was made to establish concurrent validity through again adopting the criterion-related approach. Experts in the field of education were asked to rate schools according to the extent to which they were known to contain or 'produce' alienated students. (It is acknowledged, though, that this approach is not nearly as sensitive as that designed initially.) As a result, three schools were identified in terms of whether they were low, average, or high as regards the extent to which they contained school-alienated students. In order to determine whether or not the school alienation measure could signicantly

differentiate between these schools, an analysis of variance was carried out. The results of this analysis are summarised in Table 2 below.

TABLE 2

Analysis of variance for school differences on the alienation scale

Source of variance	Degrees of freedom	Sums of squares	Mean squares	F value
Between schools	2	5 243.57	2 621.78	8.960**
Error	128	37 453.11	292.60	
TOTAL	130	42 696.68		

** p(0.001)

As can be seen from Table 2, the overall differences between the three schools were very significant ($p < 0.001$)[1]. In addition to the analysis of variance, Chi Square and estimates of Eta and Kendall's Tau were obtained in order to measure the relationship between school and school alienation - or, more specifically, the relationship between the rankings of the schools in terms of the experts' ratings and the students' test scores. This information is presented in Table 3.

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[1] The Scheffe test indicated that the measure distinguished between School 1 and School 2 at p (0.106); School 2 and School 3 at p (0.002); and School 1 and School 3 at p (0.001). Therefore, while the Scheffe test indicated that there was some overlap between schools one and two, the other differences (particularly that between the extremes - Schools 1 and 3) were very significant. This was considered to be satisfactory, given that validation by group comparison is not as sensitive a measure as the psychological type of validation that was initially designed.

TABLE 3

Chi-square distribution of school alienation with regard to experts' ratings and students' scale scores

Experts' ratings	Students' scale scores (N = 131)				
	1	2	3	4	5
School 1 (Low alienation)	3	13	5	0	0
School 2 (Average alienation)	3	35	22	0	0
School 3 (High alienation)	1	18	27	4	0

Chi Square = 17.87; 6 df; p (0.01)

Eta = 0.34

Kendall's Tau C = 0.27; p (0.0001)

On the basis of the results contained in Tables 2 and 3, one may conclude that the students' test scores on the alienation measure are significantly related to the experts' ratings of their schools with regard to school alienation. Hence it may be claimed that the school alienation measure does have concurrent validity.

The School Bureaucratization Scale

Again, validation of the scale was confronted with the problem of how to validate a measure which primarily focuses on the subjective (since it is concerned with the subject's perceptions of the bureaucracy of the school). The scale does have logical or face validity, and also meets the requirements of construct validity since, due to careful definition of terms, adherence to the dimensions of bureaucratic structure identified by Anderson, and the use of factor analytic procedures, it is closely tied to a theoretical structure from which similar propositions have been derived,

used in empirical work, and validated. The use of image analysis also attested to the content validity of this scale. Anderson had validated this scale in terms of the 'known groups' method, and this type of approach to criterion-related validity was also adopted in this research. A rating scale was prepared for teachers who were enrolled in a diploma course at this university. The scale clearly delineated the six dimensions of bureaucratic structure and established the criteria on which the teachers were required to rate the schools involved in the study in terms of the dimensions of bureaucratic structure described. (In order to obtain ratings which were as 'objective' as possible, teachers were asked not to rate any school in which they were currently teaching.) However, relatively few teachers found that they had the type of knowledge that this task required. Consequently experts in education were also asked to rate the schools, so that on the basis of these ratings it would be possible to identify three schools: one which was known to be highly bureaucratic, one which was 'average' in terms of the degree to which it was bureaucratically organised, and finally one which was known to be relatively free of bureaucratic characteristics. Subsequently an analysis of variance was carried out in order to determine whether or not the school bureaucratization scale significantly differentiated between these schools. Results are summarised in Table 4 below.

TABLE 4

Analysis of variance for school differences on the bureaucratization scale

Source of variance	Degrees of freedom	Sums of squares	Mean squares	F value
Between Schools	2	20 731.99	10 365.99	101.28**
Error	118	12 076.93	102.35	
TOTAL	120	32 808.92		

** p (0.001)

On the basis of the information contained in Table 4 one can conclude that overall there are significant differences between the three schools with regard to their perceived degree of bureaucratization.[2] In addition, measures of Chi Square, Eta, and Kendall's Tau were obtained in order to determine the relationship between the experts' ranking of the three schools, and the ranking of the schools in terms of the students' school bureaucratization scale scores. These results are presented in Table 5 below.

TABLE 5

Chi-square distribution of school bureaucratization with regard to experts' ratings and students' scale scores

	Students' scale scores (N = 121)				
Experts' ratings	1	2	3	4	5
School 1 (Low bureaucratization)	0	15	5	1	0
School 2 (Average bureaucratization)	0	0	23	26	1
School 3 (High bureaucratization)	0	0	4	39	7

Chi Square = 106.91; 6 df; p (0.0001)
Eta = 0.76
Kendall's Tau C = 0.60; p (0.0001)

On the basis of the information contained in Tables 4 and 5, one may conclude that students' scores on the perceived school bureaucratization scale are significantly related to the degree of bureaucracy present in in those schools (as determined by the experts' ratings). Therefore one

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[2] Furthermore, the Scheffe test indicated that the scale differentiated between each of the schools at the p(0.001) level of significance.

may conclude that the school bureaucratization measure does have concurrent validity.

The Conflict of Values Scale

The items in this scale were derived from a careful definition of the functions of the school as perceived by fourth form students. Values are subjective, and largely determined by an individual's construction of reality (which is influenced by reference group membership, and so on). The scale was specifically aimed at fourth form students' perceptions of their own values with regard to the school, and also to their perceptions of the school's values. The accuracy of these perceptions was regarded as being of little importance.

However, the scale was carefully designed and (by careful definition of terms) logically tied to the concepts and assumptions that derived from an analysis of the relevant theoretical literature and also from the essays obtained in the pilot study. To this extent then, the scale can be viewed as having construct validity. Image analysis indicated that the scale was representative in terms of the possible universe of items, thus attesting to the content validity of the scale, and identified five dimensions. And without doubt the scale does have face validity. In view of the very nature and aims of the scale, it was considered impossible to validate the scale by any criterion-related procedure.

The Achievement Motivation Scale

This scale differs from the previous ones in that it was assumed to be a measure of a student's actual achievement motivation. The items had been drawn primarily from the Edwards Personal Preference Schedule, and the scale had been used empirically (Manthei, 1972). Logically, therefore, the achievement motivation measure had construct validity and face validity. Since the scale measured motivation, it was decided that a criterion-related

approach would be inappropriate - it is unlikely that teachers could accurately assess an essentially 'underlying' motivation due to the fact that teachers are frequently unaware of the deeper feelings and motivations of students (see, for example, Roof (1974) supra p.32).

The predictive validity of this scale, and of the previous three measures, could really only be obtained by long-range, time-oriented analysis, and such longitudinal requirements were beyond the scope of this research.

CHAPTER VI

STATISTICAL DESIGN

The statistical design for this research involved two stages: (i) identifying the nature of any extra contributing variables by means of factor analysis, and (ii) determining, by use of the multiple regression procedure, the possible contribution that these extra variables might make in explaining variance of school alienation. However, discussion of these two stages must necessarily be preceded by the specification of formal hypotheses.

I. HYPOTHESES

It is not possible to frame formal null hypotheses with regard to those hypotheses that relate to factor analyses. However it is appropriate to respecify these hypotheses as follows:

(i) H1. Image analysis of the correlations between the items in the school alienation scale will reveal the presence of five factors identifiable as Powerlessness, Meaninglessness, Misfeasance, Futility of Extra-curricular Activities, and Self-estrangement.

H2. A factor analysis of the dimensions of alienation revealed in the test of hypothesis one will indicate the presence of a single second-order factor identifiable as School Alienation.

H3. Image analysis of the correlations between the items in the school bureaucratization scale will reveal the presence of six factors identifiable as Subject Matter Specialisation,

Hierarchy of Authority, Rules and Regulations, Technical Competence, Centralization of Control, and Impersonality.

H4. A factor analysis of the dimensions of school bureaucratic structure revealed in the test of hypothesis three will indicate the presence of two second-order factors identifiable as Status Maintenance and Behaviour Control.

H5. Image analysis of the correlations between the items in the conflict of values scale will reveal the presence of four factors identifiable as Vocational, Intellectual, Social, and Personal.

H6. A factor analysis of the dimensions of conflict of values revealed in the test of hypothesis five will indicate the presence of a single second-order factor identifiable as Conflict of Values.

H7. Image analysis of the correlations between the items in the achievement motivation scale will reveal the presence of a single factor identifiable as Achievement Motivation.

Examination of the hypotheses specified above must necessarily precede a consideration of the regression analysis involved in the design. However, if the above-mentioned hypotheses are supported then the regression hypotheses may be formulated as follows:

(ii)

Null hypotheses	Experimental hypotheses
$H_0 : R^2 = 0$	$H_8 : R^2 \neq 0$
with this null hypothesis implying:	
$H_0 : \text{Var}(X_i) = 0$	$H_9 : \text{Var (bureaucracy)} \neq 0$
where R^2 represents the proportion of total variance accounted for; and Var (X_i) represents contribution to that variance made by any variable	$H_{10} : \text{Var (conflict of values)} \neq 0$
	$H_{11} : \text{Var (achievement motivation)} \neq 0$

II. STAGE I: FACTOR ANALYSES

This stage of the research is primarily concerned with determining

(a) the extent to which the items in each scale measure the dimensions of the four major variables;

(b) the nature of the major variables in terms of their dimensions;

(c) whether or not they can be regarded as representing unitary concepts; and

(d) deriving factor scores which will be used in the multiple regressions.

The most appropriate statistical tool for this stage, then, is that of factor analysis. However, bearing in mind that multiple regressions were to be conducted in the second stage of the design, it is obvious that much importance would be attached to the factor scores used in the regression. For this reason, one of the variants of factor analysis - namely, image analysis - was chosen as being the most appropriate statistical technique to use in the factor analytic stage of the design.

Image Analysis

Several problems are met in the preliminary use of factor analysis for the general regression procedure, the most significant of which is the problem of inference. For, following factor analysis, inferences are made with regard to making generalisations about the relationships of the selected variables to the universe of such variables. Guttman (1953) has clearly pointed out the problems that this poses for researchers, and a brief discussion of these issues will serve to highlight the special merits of image analysis.

Firstly, he raises the question as to whether factor analysis is necessarily the most appropriate, or even the most valid, technique to use for purposes of any given generalisation. Typically, this assumption is made without testing the validity of using factor analysis in these situations. Image analysis, however, does in fact provide such a test,

or criterion, in the form of the anti-image covariance matrix. If the diagonal values in that matrix are high and if there are no significant sub-diagonals, then it is considered valid to use factor analysis (however if the sub-diagonals were characterised by high values, then this would suggest that factor analysis is not the appropriate statistical technique to use). Furthermore, as Guttman (1953, p.282) comments: 'Such a criterion requires no preliminary determination of "communalities" nor "fitting" of factor loadings, nor specification of the *number* of common factors'.

Given, then, that it is appropriate to use factor analysis, a second problem arises which concerns the question as to whether or not the variables available differ sufficiently, and are representative enough, to generate the minimum number of factors typical of the generalised situation. Guttman has indicated the benefits of image analysis here in that one can determine whether or not there are enough variables again by examining the anti-image covariance matrix. If the non-diagonals in the matrix are near zero, then it can be assumed that the variables available are sufficient for generating that minimum set. This problem of restricting the number of factors to the appropriate set is common to all classical analyses - if one takes fewer variables, then this minimum set of factors cannot be obtained; if one takes too many, then this brings about the possibility of introducing trivial factors which would serve to make analysis much more difficult and confusing. The solution offered by image analysis to the problem regarding the probable appropriate minimum number of factors to accept is therefore of much importance. Examination of the anti-image covariance matrix following the use of image analysis is of undoubted utility in proffering solutions to these two initial problems. As Kaiser (1963, p.160) comments: 'Thus, not only can the image approach provide an excellent approximation to factor analysis, but it also

routinely tells us of the validity of factor-analytic inferences regarding the structure of a universe of tests, the problem with which factor analysis is most fundamentally concerned'.

The third problem which confronts classical factor analysis is that of correctly and accurately estimating the communalities required for the correlation matrix. Typically it is assumed that the unreliabilities in the variances are orthogonal to all the communal and unique parts of all variables and therefore do not contribute to the communalities, and so the problem essentially amounts to the question as to what numbers may be "inserted" in the diagonal. However Guttman has indicated that this assumption is not a valid one to make, since the conception of such sampling errors as belonging to the unique parts can result in the generation of further communality. This will then inflate the true communalities and the subsequent factor loadings. It follows, therefore, that the factor scores will be distorted, and the errors of inference which they incorporate will inevitably affect the later regression analysis. However, as has been mentioned above, it is essential that the errors or unreliabilities in the factor scores be minimal, and indeed the use of image analysis leads to much more precise estimates of factor scores. Much of this refinement can be attributed to Guttman's concept of the 'partial image' which essentially refers to the fact that in any analysis only that part of the image of the variable that comes from the sample of variables included in the analysis (as distinct from the images deriving from the universe of variables) is used. As Gorsuch (1974, p.106) notes: 'In the partial image approach, only that part of the variable which overlaps with other variables influences the correlation of the variable with the factor. Variance which overlaps with the factor but not with the other variables would be excluded from the correlation between the variable and the factor in the partial image approach but not in principle axes'.

Guttman views the partial image as being the true communality. The squared multiple correlations appear in diagonal cells of the matrix; anti-image covariances are subtracted from the multiple correlations to give the image covariances which replace the observed correlations in the non-diagonals. ('The covariances are similar to adjusted correlations, i.e., they are the standard score correlations adjusted for the reduction in the variance of each variable' (Gorsuch, 1974, p.105).) This removes the sampling error which derives from the analysis of a sample rather than a population, and so the multiple correlations are adjusted down slightly. Thus, by altering the non-diagonal elements so that they are consistent with the squared multiple correlations, an attempt is made to remove error variance from the correlation matrix before factoring takes place. Therefore the image scores based on the reduced correlation matrix will be much more exact (an estimate which becomes even more exact as variables are increased) since the residuals of the particular matrix are minimised. This in turn leads to much more precise estimates of the all-important factor scores and, by implication, to more accurate regression analyses.

Significance of the Data

Hypotheses one to seven as specified above (namely, those relating to the factor analyses) cannot be formulated in terms of null hypotheses, but nevertheless tests of significance will be conducted at various points in the procedure in order to ensure the validity of any conclusions that may be drawn from the factor analyses. This (along with the points raised by Guttman) will determine whether or not the results are generalisable.

(i) Correlation Coefficients: The correlations among the first order factors are crucial, since they form the basis of the second-order factor(s); therefore it is essential to test the significance of the obtained coefficients. For prediction purposes, the standard error of r

will be estimated[1] in order to determine the values which a correlation coefficient must equal or exceed in order to reach the 1% and 5% levels of significance. These values will be reported in the appropriate tables in the form:

$$p\ 0.01 = X$$
$$p\ 0.05 = X$$

where 'X' is the minimum value for a correlation coefficient if it is to be significant at the 1% and 5% levels respectively.

(ii) Factor Loadings: If valid conclusions are to be drawn from the factor analyses, it is important to determine whether or not the factor loadings are significant, or salient, since these loadings essentially express the correlations between tests and factors. Gorsuch (1974, p.184) notes: 'A salient loading is one which is sufficiently high to assume that a relationship exists between the variable and the factor. In addition, it usually means that the relationship is high enough so that the variable can aid in interpreting the factor and vice versa'. In other words, then, by determining the significance of the factor loadings, one is making an estimate of the reliability of the contribution that the items in a scale make to each factor analysis.

It is very difficult to determine the reliability of factor loadings - the convention usually followed is that loadings greater than 0.30 are treated as significant. However loadings of 0.25 and above

---

1. The Null hypothesis is $H_0 : r_{(pop)} = 0$.
When the population is assumed to be zero, then $SE_r\ (1 - r^2)/N - 1$;
$= 1/\sqrt{N-1}$.
When N = 657 then: for p (0.01), r = 2.58; for p(0.05), r = 1.96.
The minimum significant value of a correlation coefficient (r) is determined by the formula r/SE_r.
Therefore the minimum significant r for p (0.01) is: $r = 2.58/\sqrt{N-1}$;
$= 0.1007 \simeq 0.10$
Similarly, for p (0.05) the minimum significant $r = 1.96/\sqrt{N-1}$
$= 0.07544 \simeq 0.075$ (see Guilford, 1956, p.178-181).

often increase with rotation. Consequently the criterion for acceptance of factor loadings - or rejection of them as "negligible" - will be as follows:

(a) loadings greater than 0.30 will be treated as significant, and will be asterisked '*' in the appropriate tables;

(b) loadings greater than 0.25 but less than 0.30 will be treated as tending towards significance, and indicated by a dot '·' in the appropriate tables.

The significance of factor loadings can be determined in terms of the communalities, which act as minimal values (or lower bound estimates) of reliability. The communality of a variable refers to the proportion of its variance which can be accounted for by the common factors - it is the sum of the squares of the factor loadings of an item on all the factors. Put more simply, it is the variance it shares with other variables. If communalities are high, then this reinforces reliability. Some communalities are inevitably low, but are not necessarily always rejected since the variable may still make an important contribution to the factor pattern. In this research, nearly all communalities were adequately high (see Harman, 1960, p.15) and will be reported in the appropriate tables.

Procedure

(1) The items comprising each of the four scales will be subjected to an image analysis (which, as previously described, will also indicate the validity of using factor analysis) and orthogonal rotation according to the Varimax criterion. This will enable identification of the number of factors which have significant loadings.

(ii) The significant factors will then be rotated to simple structure by submitting them to oblique rotation according to the direct oblimin criterion (see Nie *et al.*, 1975, p.486). The degree of obliquity is controlled by setting a Delta value, which may range from -5 (which is

almost orthogonal) to +0.5 (which is extremely oblique). Factor scores will be collected, and subsequently checked visually by using the Condescriptive procedure of the Statistical Package for Social Sciences (Nie *et al.*, 1975).

(iii) A second-order factor analysis, according to the Varimax criterion, will then be conducted to enable the isolation of any general factor(s). The factor scores collected from this final factoring will be checked (again by means of the Condescriptive program) and saved for use in the multiple regression. These factor scores are essentially composite scores in that they 'sum up' each subject's score on each scale in terms of score(s) on the (correlated) general factor(s). (For example, an original 36 item-scores may be converted into, say, seven first-order factor scores, and subsequently condensed into one or two second-order factor scores.) These factor scores are then used as variables in the regression equation.

Confirmation/Rejection of the Hypotheses

Hypotheses one to seven as specified above (supra pp.102-3) will be accepted or rejected on the basis of the outcome of the first- and second-order factor analyses.

III. STAGE II: MULTIPLE REGRESSION

Factor analysis and multiple regression analysis have in common the fact that they are both basically regression methods. However the essential purpose of the two methods is quite different, as Kerlinger and Pedhazur (1973, p.364) clearly point out: 'Factor analysis' basic purpose is to discover unities or factors among many variables and thus to reduce many variables to fewer underlying variables or factors. In achieving this purpose, factors "explain" data...however...multiple regression

"explains" a single, known, observed, and measured dependent variable through the independent variables. Factor analysis "explains" many variables, usually without independent and dependent variable distinction, by showing their basic structure, how they are similar, and how they are different'.

The second stage of the research involves multiple regression since it is the most appropriate statistical technique for describing and interpreting the structural nature of the relationships among variables, with emphasis on the amount of variance of the criterion variable (school alienation) which can be explained by the predictor variables (perceived school bureaucratization, conflict of values, and achievement motivation). The technique is of added utility in that it also enables the researcher to control, statistically, any unwanted systematic or confounding variables.

The Problem of Causality

Since no assumptions have been made about causality, the standard regression procedure will be used. However the problem of causality was examined in some detail. This would have required the use of path analysis, but this technique was rejected on the following grounds:

(i) Examination of the literature proffered no evidence on which a claim of unidirectional causality could be based - that is, the author failed to find evidence to support the following notions: (a) that there exists a clear time sequence; (b) that a change in any of the predictor variables would necessarily cause a change in the criterion variable; and (c) that a change in the criterion variable would not cause any change in the predictor variables. Since no clear-cut evidence could be found which would support any of these prerequisites for a claim of causality (for one example, consider Harper's (1973) failure to find a significant relationship between achievement motivation training and alienation in secondary school students) a correlational model seemed the appropriate

one to adopt.

(ii) Several authors have indicated that the direction of causality is problematic in alienation studies (see, for instance, Seeman (1971, 1972); Wilson (1973); and Woods (1976)). In fact the implication of studies such as these is that the relationship(s) may well be reciprocally causal or circular. At best, then, there is obvious ambiguity with regard to causality - this provides further justification for the adoption of a correlational rather than a causal model.

(iii) Bearing in mind that school alienation is considered to be an instance of S-alienation, it is likely that some 'back action' may occur between the interpretive processes and perceptions of the subject on the one hand, and social reality on the other. Taking school bureaucratization as an example: all alienated students may not necessarily perceive the school as being very bureaucratic; and alienated students may in fact make manifest the bureaucratic nature of the school - for instance, through bringing about the necessity for stringent rule enforcement. Of relevance here, also, is Davids' (1955) discussion concerning the possible 'contaminating' influence of alienated subjects' mis-perceptions.

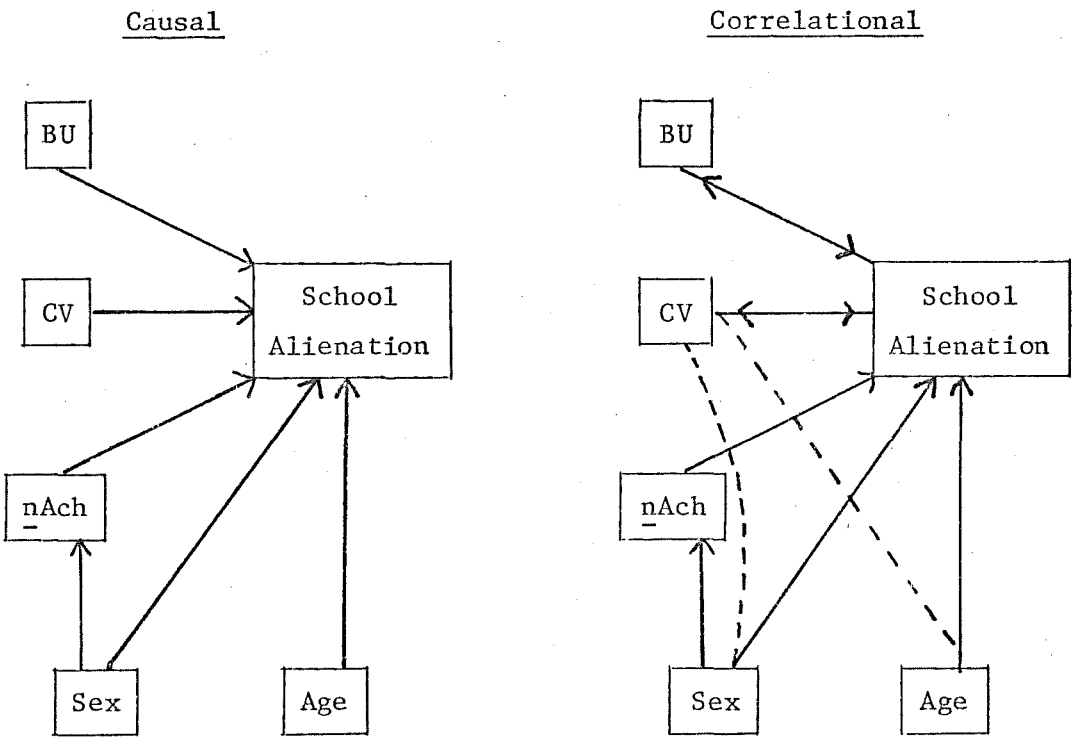
(iv) The phenomenological emphasis on perceptions also has a bearing on the causality problem, in that it highlights the methodological problems involved in 'measuring' subjective processes, identifying the nature and source of 'changed' perceptions, and so on.

Nie *et al.* (1975, p.383) specify two assumptions which underlie the use of path analysis as a means of causally describing and interpreting the relationships among a set of variables. These assumptions are: '...(1) a *(weak) causal order* among these variables is known and (2) the relationships among these variables are *causally closed*'. Bearing in mind the points discussed above, it is clear that such assumptions may not be validly made, and therefore the standard regression method (which is a correlational as

opposed to a causal model) was chosen as the appropriate regression technique for this research. For similar reasons the terms 'criterion' and 'predictor' rather than 'dependent' and 'independent' will therefore be used in descriptions of the appropriate variables. The distinction between the correlational and causal models is presented schematically in Figure 1.

FIGURE 1

A comparison of causal and correlational models



Key: BU School Bureaucratization
CV Conflict of Values
nAch Achievement Motivation
——→ denotes causal link
←——→ denotes 'back action'
- - - - denotes queried or possible link

The Prediction Equation

It is assumed that the relationship between the criterion variable and the predictor variables is linear and additive. Consequently the multiple linear regression equation can be stated as follows:

$$Y' = a + B_1X_1 + B_2X_2 + \ldots B_nX_n$$

The object of the regressions, then, is to fill in the constants of this prediction equation so that the scores on the predictor variables can be inserted into the equation and used to obtain predicted (Y') scores, if so desired. In addition, this 'filling in' of the prediction equation enables the researcher

(i) to determine the amount of contribution to the total variance of Y that is due to the predictor variables (X_n). This is expressed by the squared multiple correlation coefficient (R^2);

(ii) to determine the relative 'importance' of these different variables in making predictions to Y - that is, the specific contribution made to variance by each of the variables. This information will be provided by the regression weights (B_n) which are assigned to the various predictor variables and are determined by (a) the correlation(s) between the predictor variable(s) and the criterion variable - in the ideal case, this correlation would be high - and, also, by (b) the intercorrelations of the predictor variables - which, in the ideal case, would be low since otherwise some of the variance in the criterion variable that is explained by each predictor variable would overlap with that explained by others. The regression weights used derive from '...the correlation coefficient multiplied by the ratio of the standard deviation of the criterion to the standard deviation of the predictor. In the multiple regression equation ... a partialling out has to be done (therefore) the correlation coefficient will be a partial one and the standard deviations will be

partial ones' (Ley, 1972, p.73). This incremental contribution to variance that is attributable to each variable after it is added to the equation containing all the other variables will be reported in the results in the form of 'RSQ Change'; and, finally

(iii) to determine whether or not the regression of the criterion variable on the predictor variables is statistically significant. This will be determined by means of the F test, and the F values will be reported in the appropriate results tables.

Therefore the prediction equation may be re-specified on the basis of the outcome of the regression analysis.

Significance of the Data

In order to test the null hypotheses specified above (supra p.103) the significance of the following coefficients must be determined:

(i) The Squared Multiple Correlation Coefficient (R^2). In order to test the null hypothesis that the squared multiple correlation is equal to zero and that none of the total variance of the criterion variable is explained by all the variables entered in the regression equation (that is, any multiple correlation obtained is due to error), the 'overall' F test will be carried out according to the formula:

$$F = (SS_{regr}/k) / (SS_{resid}/(N-k-1)) \text{ with degrees of freedom } k/(N-k-1)$$.[2]

The significance of the obtained F value will be reported in the appropriate results table.

(ii) A Specific Regression Coefficient (RSQ Change). To test the null hypothesis that the variance explained by each of the experimental variables is equal to zero (in other words, that none of the experimental variables makes a specific - or incremental - contribution to the variance

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2. With a sample size (N) of 657, and the number of independent variables (k) equalling fifteen, df = 15/641. Therefore the minimum significant F for p(0.01) is approximately 2.07; and for p(0.05) approximately 1.68.

of the criterion variable), F tests will be carried out according to the following formula:

$$F = (SS_{\text{regr of variable}}/1) \; / \; (SS_{\text{resid}}/(N-k-1))$$

with degrees of freedom $1/(N-k-1)$.[3]

The obtained values of F, and their significance, will be reported in the regression summary table.

(iii) All Regression Coefficients (B's). To enable the respecification of the prediction equation, F tests will be carried out in order to determine the significance of the regression coefficients. The formula for this test is:

$F = (SS_{regr}/1) \; / \; (SS_{resid}/(N-2))$ with degrees of freedom $1/(N-2)$.[4]

The significance of the F value for each B will be reported in the regression summary table.

Procedure

The standard regression method will be used, with all the control variables being entered as the first group in the regression analysis, and the experimental variables following as the second group. As Nie *et al.* (1975, p.336) comment: 'In the standard regression method each variable is treated as if it had been added to the regression equation in a separate step after all other variables had been included. The increment in R^2 (or in the explained sum of squares) due to the addition of a given variable is taken as the component of variation attributable to that variable'. It is essential (particularly when causality is ambiguous) that the controls be entered first so that the variance of

3. With N = 657 and k = 1, df = 1/655. The minimum significant value of F for p(0.01) is approximately 6.68; and for p(0.05) approximately 3.86.

4. As for Footnote 3 above.

these controls may be extracted - this then reduces the possibility of the control variables confounding the correlation(s) between the criterion and experimental variables. When the experimental variables are entered after the controls, several regressions are carried out, due to the fact that in this regression method each experimental variable in turn is treated as the last one to be added to the group. This enables the researcher to determine the extra contribution that is made by each experimental variable, and it also makes possible comparisons of variables (in terms of their extra contribution to the variance of the criterion variable).

Confirmation/Rejection of Hypotheses

The null hypotheses specified above (supra p.103) will be tested by means of F tests with appropriate degrees of freedom. The decision to accept or reject the null hypotheses will take place at the (0.01) level of probability.

CHAPTER VII

SAMPLING AND PROCEDURE

I. SUBJECTS

The subjects chosen for this research were fourth form students. This decision was made on the grounds that fourth formers are used to the secondary school environment, they are not faced with the prospect of external end-of-year examinations, and they are legally bound to attend school. Compulsory attendance also means that there is unlikely to be any considerable 'dropout' among fourth form students, whereas a sample taken from higher up in the school would be 'self-selected' to a substantial degree. In addition the considerations that have already been outlined in Chapter III (supra p.64) provide further justification for the selection of such subjects.

II. SAMPLING DESIGN

In order to ensure that the research sample was a random and representative one, the following steps were taken with regard to the selection of schools[1] and students:

(1) Secondary schools in Christchurch and the outlying rural areas (to a radius of approximately sixty miles) were matched in pairs according to the criteria of sex; location; religion (private or secular); socio-economic status (as determined both by the immediate area within which the school was located and by the 'prestige' attributed to the school); and

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1. The five schools which were involved in the various pilot studies were excluded from the 'pool' of schools from which the sample for the major study was drawn.

approximate school size.

(2) Subsequent to matching, one member of each pair was randomly allocated to the research sample. Table 6 presents a schematic description of the composition of the selected sample of schools.

TABLE 6

Summary description of the sample of secondary schools (N = 15) from which subjects for the major study were drawn

Type of School		Socioeconomic Status			N	Location	
		Upper	Middle	Lower		Urban	Rural
Private and single sex (N = 6)	Female (N = 3)	2	1	0		3	0
	Male (N = 3)	2	1	0		3	0
Secular and Co-educational (N = 9)		1	5	3		5	4
TOTAL		5	7	3	15	11	4

(3) Two fourth form classes were chosen from the majority of schools, and in the case of the few smaller schools only one class was selected for inclusion in the sample. The total number of classes in the sample was twenty-six.

(4) In order to ensure that the sample was representative in terms of student ability, the classes were randomly divided into the categories of 'Above Average', 'Average', and 'Below Average'. This was in case schools were unable to cover the entire range of ability given the number of classes 'allocated' for the study. (Where possible, classes representing the range of ability - 'Mixed' classes - were chosen, with the initial categorisation of classes being readjusted to ensure that a balance of classes with regard to ability level was maintained.)

It was decided to exclude work experience and/or special classes from the sample on the grounds that the demands of the task would exceed the intellectual, concentration, and reading capabilities of students in these classes. In this respect, then, the sample was not as truly representative as possible. The 'nature' and distribution of the classes involved in the study is summarised in Table 7.

TABLE 7

Distribution of the classes (N = 26) in the sample with respect to ability level

	Ability Level				
	Above average	Average	Below average	Mixed	TOTAL
Number of classes	6	6	6	8	26

III. EXPERIMENTAL PROCEDURE

Approach to Schools

In each instance (that is, for the pilot studies and for the major study) an introductory letter outlining the nature and requirements of the research was sent to the principal of each school involved, and this was followed by an interview with the principal. All the schools selected for the pilot studies were willing to co-operate and all but one of the schools chosen for the final sample agreed to take part in the research. In the instance of the one refusal, the other school with which it had been orignally matched was approached and proved willing to co-operate. The anonymity of both the students and the schools was ensured.

The Pilot Studies

In all, four pilot studies were conducted, all of which were

primarily concerned with developing reliable, valid measuring instruments.

Study 1: This involved 133 fourth form students from two co-educational high schools - one of which was in a rural location, and the other was in Christchurch. The students were required to write an essay entitled 'What I think school is for' and the ideas obtained from these essays were extremely useful in the design of the Conflict of Values scale (supra p.76).

Study 2: involved 177 fourth form students at one Christchurch co-educational secondary school. The basic purpose of this study was to check on the appropriateness of the reading and difficulty level of the items, to determine whether or not there was any significant overlap between the school alienation, school bureaucratization and conflict of values measures, and to determine the utility of the check items (supra p.79).

Study 3: essentially amounted to a 'preliminary run' of the final, adjusted versions of the measures (with the exception of the achievement motivation scale). A total of 373 fourth form students from the two high schools that were involved in study one, and from two single sex schools (one male, and the other female) responded to the questionnaire. A factor analysis of the conflict of values scale was carried out, and any 'troublesome' items were dropped. Estimates of the reliability of each measure were obtained, and the study also provided information with regard to the feasibility of the instructions and format of the questionnaire, and the time required for its completion (supra p.80). Again the check items proved to be effective in identifying 'suspect' scripts.

Study 4: involved 115 fourth form students from the two Christchurch single sex high schools involved in study three. This study was concerned with establishing the viability of the achievement motivation scale, and determining the extent to which sex-appropriate items and pairings were

required (supra p.85).

The Major Study

It was decided that the major phase of the research should be conducted at the end of the second term, since (a) students would by then be familiar with fourth form work and responsibilities; (b) by then students' opinions and feelings about school would have had time to crystallize; and (c) if the study was not carried out until the third term then it would be likely that a considerable number of students would have reached school leaving age. Of those students, it was assumed that any who were alienated from school would leave as soon as possible. Thus, by completing the major study by the end of the second term it was hoped that students such as these would still be included in the sample, and so sample loss would be minimised.

Reading Problem. Taking into account the fact that special classes and work experience classes were to be excluded from the sample and that the extensive pilot testing seemed to have 'weeded out' such problems as complexity of items, inappropriate reading level, and so forth, it was assumed that the final, adjusted version of the questionnaire could be readily handled by students in the sample. However in the course of an interview with one of the principals, it was pointed out that the questionnaire would in fact be too difficult for lower stream students at that school. It seemed that this reading difficulty was restricted to the alienation scale. Fortunately this interview was one of the earliest ones to be conducted, and although the major pilot study (study three) had failed to suggest that there was any reading problem in the alienation scale, it was assumed that this difficulty might well be applicable to the lower classes at other schools in the sample. Consequently eleven items which seemed to be the most difficult ones in the scale were simplified for

poor readers (see Appendix A, p.218) and the readjusted version was placed over the appropriate item in the scale. Approximately one hundred scripts were adjusted in this manner, and were distributed to those schools which indicated a need for them.

Questionnaire Administration. Since directions on the questionnaire were self-explanatory and an example response was given for each of the measures involved, the questionnaire was distributed by teachers in accordance with the instructions given to the principal by the researcher. It was completed by all students who were in the classes on that particular day, and was completed within a one hour time period.

Accepted/Rejected Scripts. Scripts were accepted, set aside for closer scrutiny, or rejected, according to the number of check items which had been correctly answered (supra p. 88). In all, a total of 674 students responded to the questionnaire, and of those scripts 657 were accepted and seventeen (or approximately 2.5%) rejected. With regard to the rejected scripts, seven appeared to have been falsified and not treated seriously by the students, and ten were insufficiently completed.

Incomplete Scripts. These ten scripts comprised approximately 1.6% of the total sample (which indicates that the 'test' was not speeded) and were rejected on the grounds that more than 10% of the questionnnaire was not completed. In cases where less than 10% was incomplete, scripts were set aside and the subject's responses to that scale were scrutinised, along with a large sample of other students' responses to that section. If a clear pattern could be discerned in the subject's script and in the responses of other subjects to the 'missing' items, then this pattern was followed when filling in the omitted items; otherwise the mean value for that student was inserted.

Follow-up for Schools

After completion of the pilot and final studies, a letter was sent to each principal expressing appreciation for the co-operation of the school and, in particular, for the apparent seriousness with which students had responded to the task. A summary of the research findings will be sent to all schools involved in the research.

CHAPTER VIII

RESULTS

The research results will be reported in three main sections: the first will describe the general distribution of the test data; the second will consider the results of the factor analyses; and finally the third section will be primarily concerned with reporting the results of the multiple regression.

I. DISTRIBUTION OF THE DATA

The general distribution of the data with regard to each of the four scales contained in the student questionnaire is outlined in Table 8 below.

TABLE 8

Distribution of the data for the four scales

		Scale			
		Alienation	Bureau-cratization	Conflict of Values	Achievement Motivation
Mean		97.13	105.78	73.91	20.32
Standard Deviation		19.08	11.82	19.14	4.6
Response Distribution (on a range of 1 to 5)	1	35 5.32%	0 0	238 36.23%	90 13.70%
	2	333 50.69%	17 2.59%	323 49.16%	165 25.11%
	3	244 37.14%	193 29.37%	80 12.18%	190 28.92%
	4	42 6.39%	416 63.32%	15 2.28%	167 25.42%
	5	3 0.46%	31 4.72%	1 0.15%	45 6.85%
Average score for sample as a whole		2.47	3.70	1.81	2.86
Total number in sample: N =		657	657	657	657

With regard to the school alienation scale, the mean for the entire scale was 97.13, and the standard deviation was 19.08. Examination of the distribution of the data indicates that approximately 88% of the responses fell in categories '2' and '3', and this response tendency is supported by the average score for the sample as a whole which, on a range of one (indicating 'none') to five (indicating 'high'), was 2.47. Therefore this data seems to indicate considerable school alienation.

The mean for the bureaucratization scale was 105.78, with a standard deviation of 11.82. This indicates that the distribution is somewhat skewed in the direction of high bureaucratization. Examination of the distribution indicates that approximately 63% of the responses fell in category '4', and the average score for the sample as a whole was 3.70 (on a range from one (none) to five (high)). This suggests that students perceive their schools to be highly bureaucratic in structure.

Bearing in mind that the conflict of values scores were converted from a zero to four scale to a range of one (no appreciable conflict) to five (high), the mean for the scale was 73.91, with a standard deviation of 19.14. This would suggest that the distribution is skewed in the direction of low conflict, and this is borne out by the average score for the sample as a whole which was 1.81. This would seem to suggest that students perceive that there is relatively little conflict between student and school values.

Finally, the achievement motivation scale had a mean of 20.32 and a standard deviation of 4.6. This, together with the average score for the sample as a whole which was 2.86 (on a range of one (nurturance) to five (achievement motivation)) tends to suggest that the distribution was widely spread and is indicative of a tendency towards achievement motivation, although this is not substantial by any means.

II. FACTOR ANALYSES

For purposes of clarity and cohesion, each of the measures will be considered in turn.

(1) School Alienation Results

The thirty-eight items comprising the school alienation scale were submitted to an image analysis and orthogonal rotation. An examination of the anti-image covariance matrix indicated that the values in the diagonal cells of the matrix were all high, and the non-diagonal values were clearly negligible. (For purposes of illustration, a sample section of the anti-image matrix is presented in Appendix A, p.214, Table 20.) It was concluded that the items in the scale were representative of the universe of possible items, and that factor analytic techniques could be legitimately used.

Image analysis with orthogonal rotation according to the Varimax criterion indicated the presence of nineteen factors which had eigenvalues exceeding one. However inspection of the orthogonally rotated factor matrix indicated that only the first six of these factors contained significant loadings and that the subsequent factors were minor ones. In general the communalities, which represent the lower bound estimates of item reliability, were adequately high and are reported with the Varimax rotated factor matrix (see Appendix A, p.215, Table 21). For display purposes the items had been re-sorted according to subtest, and are presented in re-sorted order in Appendix A, p.216a). The orthogonal matrix clearly indicates the sharp cut off point with regard to the significant factors - the first five factors are clearly heavily loaded, the sixth is somewhat doubtful in that it has only one significant loading, and the seventh and subsequent factors are characterised by essentially negligible loadings.

Although the sixth factor was uninterpretable and was regarded as a trivial factor, it was nevertheless retained on the grounds that it could possibly be functioning as a suppressor. Thus the first six factors were submitted to oblique rotation according to direct oblimin criteria, and simple structure was finally attained at Delta = 0.27 (see Appendix A, p.217, Table 22). The communalities are the same as for the orthogonal matrix (see Appendix A, p.215, Table 21).

The first five factors were readily interpretable, since they closely adhered to those which were outlined by Anderson and respecified in Chapter IV (supra p.67-8). These five factors were identified as follows:

Factor 1: Self-estrangement
Factor 2: Misfeasance
Factor 3: Powerlessness
Factor 4: Futility of Extra-curricular Activities
Factor 5: Meaninglessness

The sixth factor could not be identified, and since it only had one significant loading, and only three which tended towards significance, it was dismissed as a trivial factor.

The correlations between these first-order factors are presented in Table 9. To reach significance at the 1% level, a coefficient must equal or exceed 0.10; and for the 5% level it must equal or exceed 0.075 (see Footnote 1, supra p.108).

TABLE 9

Correlations between the first-order factors (or dimensions) of school alienation

	Factors	1	2	3	4	5	6
1.	Self-estrangement	1.00	-	-	-	N = 657	
2.	Misfeasance	0.69	1.00	-	-	p 0.01 = 0.10	
3.	Powerlessness	0.69	0.61	1.00	-	p 0.05 = 0.075	
4.	Futility of Extra-curricular Activities	0.60	0.60	0.61	1.00	-	-
5.	Meaninglessness	-0.79	-0.64	-0.67	-0.61	1.00	-
6.	Unidentified (trivial)	0.04	-0.21	-0.08	-0.095	-0.02	1.00

The correlation coefficients for the first five factors are clearly all significant beyond the p (0.01) level, as is indicated in Table 9. For Factor Six, however, all but one of the correlation coefficients failed to reach significance - which seemed to provide further support for regarding the factor as a trivial one. Of note is the negative relationship between Meaninglessness and the other four dimensions of school alienation.

Factor scores were collected from this first-order analysis, and checked, but only those scores deriving from the first five factors were submitted to the second-order factor analysis. The sixth factor was excluded from second-order analysis on the grounds that it appeared to be a trivial factor. (This factor can be safely omitted from the second-order factoring because the theory of image analysis indicates that factors such as this produce very little effect on the factor scores obtained in the second-order analysis.) The second-order factor analysis yielded three factors with eigenvalues greater than one. However even after Varimax rotation only one of these three general factors had significant loadings, as is shown in Table 10. Thus the second-order analysis yielded one general factor and two trivial factors. The communalities are high in each case - suggesting high reliability - and are also reported in Table 10. As is apparent from examination of Table 10, each of the first-order factors loads highly and significantly on the first general factor (with the exception of Meaninglessness which had a negative loading) and negligibly on the other two trivial factors. Thus the single second-order factor was identified as School Alienation.

Factor scores were collected from this second-order analysis for later insertion into the regression equation. Thus a subject's scores on an original thirty-eight items have been 'condensed' into a single composite score which will be entered as the criterion variable in the multiple regression.

TABLE 10

Second-order factor analysis of the school alienation data

A: Unrotated factor matrix

	Dimensions	Factor 1	Factor 2	Factor 3	Communality
1.	Self-estrangement	0.87	0.07	-0.01	0.77
2.	Misfeasance	0.79	-0.14	-0.01	0.64
3.	Powerlessness	0.79	-0.03	0.01	0.63
4.	Futility of Extra-curricular Activities	0.74	-0.08	0.02	0.55
5.	Meaninglessness	-0.87	-0.06	0.00	0.76

B: Varimax rotated factor matrix

	Dimensions	Factor 1	Factor 2	Factor 3	Communality
1.	Self-estrangement	0.88	0.03	-0.01	0.77
2.	Misfeasance	0.77	0.23	-0.01	0.64
3.	Powerlessness	0.78	0.12	0.01	0.63
4.	Futility of Extra-curricular Activities	0.73	0.16	0.02	0.55
5.	Meaninglessness	-0.87	-0.04	0.01	0.76
General Factor Name:		'School Alienation'		(Trivial Factors)	

Conclusion. On the basis of the results presented above, one may conclude that the alienation scale data may be adequately represented by the five first-order factors of Self-estrangement, Misfeasance, Powerlessness, Futility of Extra-curricular Activities, and Meaninglessness. Consequently Hypothesis One as specified in Chapter VI (supra p.102) can be accepted. The second-order factor analysis indicated that these five dimensions of alienation may be subsumed under a single, integrating second-order factor identifiable as School Alienation. Thus Hypothesis Two as specified in Chapter VI (supra p.102) may also be accepted.

(2) School Bureaucratization Results

The thirty items of the School Bureaucratization scale were submitted to a first-order image analysis and orthogonal rotation. However examination of the anti-image covariance matrix suggested that some items were ambiguous - this was further supported by the presence of four low communalities. The four relevant items were examined, and subsequently items fourteen and sixteen were dropped because of ambiguity, low communality and failure to load on any factor. The remaining two items which had low communalities were retained because they 'belonged' to a dimension which was only measured by four items in all (whereas the other two items came from a dimension which was represented by a total of twelve items).

The remaining twenty-eight items of the School Bureaucratization scale were then subjected to another first-order image analysis and were rotated according to the Varimax criterion. Examination of the anti-image covariance matrix indicated that the diagonals were high and the values in the non-diagonals approximated zero. From this it was concluded that the items could be considered to be representative of the universe of items, and that factor analysis was a legitimate

analytic technique to use.

The first-order image analysis, and subsequent orthogonal rotation, yielded fourteen factors with eigenvalues greater than one. Of these factors, the first five had significant loadings and the sixth contained a number of loadings which, although they did not reach significance, were relatively high and so this factor was retained. Factors seven to fourteen inclusive had negligible loadings and were dismissed as trivial factors. The Varimax rotated factor matrix is presented in the Appendix (see Appendix B, p.221, Table 23. As was the case with the alienation items, the bureaucracy items were also re-sorted for display purposes, and are presented in their re-sorted order in Appendix B, p.222a). Apart from the two items mentioned above, the communalities were sufficiently high thus reinforcing the reliability of the items in the scale. The communalities are reported with the Varimax factor matrix (Appendix B, p.221, Table 23).

The first six factors which emerged from the first-order image analysis and orthogonal rotation were then rotated obliquely according to the direct oblimin criterion. Thurstonian simple structure was reached at Delta = 0.47, which indicates that the rotation was extremely oblique. This oblique factor pattern is presented in the Appendix (Appendix B, p. 223, Table 24) and the communalities are the same as for the Varimax rotation. Each of the twenty-eight items loaded significantly (or tended towards significance) on the six factors. The factors were similar to those outlined by Anderson and respecified above (supra p. 70). However the items loaded somewhat differently, particularly with regard to the Centralisation of Control and Rules and Regulations dimensions, as is reflected in the following factor names:

Factor 1: Hierarchy of Authority
Factor 2: Rules and Behavioural Expectations
Factor 3: Subject Matter Specialisation
Factor 4: Centralisation of Control over Decision-making
Factor 5: Impersonality
Factor 6: Technical Competence

Factor One was labelled 'Hierarchy of Authority' since it basically adheres to the prespecified definition of that dimension (supra p.70). The items which loaded on this dimension essentially highlight the student's subordinate position at the lowest level of the hierarchy. An item which was originally in this dimension and which highlighted the teachers' obedience to higher levels in the hierarchy moved from this factor to factor four.

Factor Two largely followed the prespecified definition of rules and regulations, with all but one of these items loading on factor two. The one which failed to load on this factor differed from the others in that it dealt primarily with the regulative force of the school and it loaded on factor four. In contrast to this, all the other items which loaded on factor two emphasised the function of rules as they relate to the behaviour expected of the student. Therefore this factor was relabelled 'Rules and Behavioural Expectations'.

Factor Three was clearly identifiable as 'Subject Matter Specialisation' since only the two items relating to that dimension loaded on this factor.

Factor Four presumably taps centralisation of control since four of the five items representing that dimension loaded significantly on this factor. The other item was concerned with the authority that the principal has over the student and it loaded significantly on factor two. This is perhaps to be expected, since students may well view the principal as an enforcer of rules and a person who has clearly defined

expectations with regard to the behaviour of students. (That item also tends towards a significant loading on factor one - which can be readily interpreted in terms of an 'authority' explanation - and tends towards significance (though only barely) on factor six.) Four other items also loaded on factor four, three of which derive from the Hierarchy of Authority dimension. This could be expected, since Anderson originally found that the 'Centralisation of Control' dimension emerged as a separate entity from a whole group of items which together represented 'Hierarchy of Authority'. These three items generally reflect the controlling influence of school authorities with regard not only to students but to teachers as well. The regulative force of the school is again reflected in the original rules and regulations item which loaded on this factor. All these items essentially connect to the abstract idea of the hierarchical control that the school exerts over the decision-making (and, by implication, over the actions) of subordinates. Thus this factor was relabelled 'Centralisation of Control over Decision-making' in the hope that this would more accurately convey the essential nature of this factor. Thus while still meeting the definition of centralisation of control as specified previously (supra p.70) the 'new' name is also more specific in that it suggests an answer to the immediate question 'Control over what?'.

Factor Five is clearly that of 'Impersonality', although only two of the original three items load here. The third item dealt with behavioural expectations in that it focused on the 'proper respect' that a student is expected to show to school authorities. Thus this item could readily be included in factor two, which was the factor on which it loaded significantly.

Factor Six closely adheres to the dimension of 'Technical Competence', since three of those four items load significantly on this

factor and on no other. The other item did tend towards significance, and it also failed to load on any other factor. Examination of this item indicated that it was rather complex, which may explain why it did not load more highly on this factor.

The correlations between these six first-order factors, and the minimum significance values, are shown in Table 11.

TABLE 11

Correlations between the first-order factors (or dimensions) of the perceived bureaucratic structure of the school

Factors	1	2	3	4	5	6
1. Hierarchy of Authority	1.00	-	-	-	N = 657 p 0.01 = 0.10 p 0.05 = 0.075	
2. Rules and Behavioural Expectations	0.46	1.00	-	-		
3. Subject Matter Specialisation	0.42	0.34	1.00	-	-	-
4. Centralisation of Control over Decision-making	0.53	0.47	0.43	1.00	-	-
5. Impersonality	-0.47	-0.34	-0.53	-0.54	1.00	-
6. Technical Competence	0.02	0.29	-0.14	0.26	0.08	1.00

Clearly, the correlation coefficients for the first five factors are significant at the 1% level of significance. With regard to the sixth dimension, three of the coefficients are significant at the 1% level, one is significant at the 5% level, and one fails to reach significance. Of note is the consistent negative relationship between Impersonality and the other aspects of the perceived bureaucratic structure of the school. Also of note are the low correlation coefficients for factor

six; however these coefficients were not as low as those for the sixth alienation first-order factor and this, along with its significant factor loadings, justified retaining this factor for further analysis.

Factor scores were collected from this first order analysis, and, after checking, were submitted to a second-order factor analysis and Varimax rotation which indicated the presence of two general factors with eigenvalues greater than one. The first five first-order dimensions loaded significantly on the first of the two general factors (with the loading for factor five being a negative one) and the sixth factor loaded extremely highly on the second general factor. The communalities were all high (again reinforcing the reliability of the first-order factors) and are reported with the unrotated and rotated second-order factor matrices presented in Table 12. Since all but the sixth first-order factor loaded on the first general factor (as can be seen in Table 12) this factor seemed to reflect the formal or bureaucratic organisation of the school. Therefore this factor was identified as Bureaucratic Organisation. The negative loading of Impersonality on this factor is to be expected, given the previous comments with respect to its negative correlation with the other dimensions (supra p.135). The second general factor was defined by the Technical Competence dimension (and also in a minor way by Rules and Behavioural Expectations which had a significant loading, and by Subject Matter Specialisation which had a negative loading that tended towards significance. However these factors also loaded on the first second-order factor). It seemed, then, that the second general factor revolved around the notion of encouraging and evaluating students' performance in terms of the relatively objective criterion of ability, and therefore reflects a concern with developing the excellence or expertise of students. Consequently this factor was labelled Development of Expertise.

TABLE 12

Second-order factor analysis of the school bureaucratization data

A: Unrotated factor matrix

	Dimensions	Factor 1	Factor 2	Communality
1.	Hierarchy of Authority	0.77	-0.01	0.59
2.	Rules and Behavioural Expectations	0.64	0.29	0.49
3.	Subject Matter Specialisation	0.66	-0.29	0.51
4.	Centralisation of Control over Decision-making	0.86	0.20	0.78
5.	Impersonality	-0.75	0.25	0.63
6.	Technical Competence	0.02	0.96	0.92

B: Varimax rotated factor matrix

	Dimensions	Factor 1	Factor 2	Communality
1.	Hierarchy of Authority	0.77	0.03	0.59
2.	Rules and Behavioural Expectations	0.63	0.32	0.49
3.	Subject Matter Specialisation	0.67	-0.26	0.51
4.	Centralisation of Control over Decision-making	0.85	0.24	0.78
5.	Impersonality	-0.76	0.21	0.63
6.	Technical Competence	-0.02	0.96	0.92
General Factor Names:		'Bureaucratic Organisation'	'Development of Expertise'	

Factor scores were collected from the second-order factoring and saved for later insertion into the regression equation. Thus the subjects' original scores on twenty-eight of the thirty items have been condensed into two composite scores which will be used as predictor variables in the multiple regression.

Conclusion: On the basis of the results of the first-order factor analysis, it may be concluded that students' scores on the school bureaucratization scale may be represented in terms of six dimensions - Hierarchy of Authority, Rules and Behavioural Expectations, Subject Matter Specialisation, Centralisation of Control over Decision-making, Impersonality, and Technical Competence. These first-order factors differed slightly from those specified in hypothesis three (supra p.102-3) but in the direction of greater clarity. Thus hypothesis three may be accepted. The second-order factor analysis indicated that these six dimensions may be subsumed under two general second-order factors - namely, Bureaucratic Organisation and Development of Expertise. On the basis of the results of the second-order factoring, hypothesis four - as specified in Chapter VI (supra p.103) - can only be accepted insofar as it specifies the number of second-order factors that will emerge; however, with regard to the identity of these factors, it must be rejected.

(3) Conflict of Values Results

Prior to analysis, the scores on the conflict of values scale were converted so that they ranged on a scale of one to five, instead of from zero to four. This was primarily for purposes of analysis, so that the responses to this scale would be on a range similar to that used for the previous two measures.

Students' responses to the thirty-six items in the conflict of

values scale were submitted to a first-order image analysis and an orthogonal rotation according to the Varimax criterion. However this analysis suggested the presence of troublesome items, and after careful scrutiny three items (nine, twelve, and twenty four - in re-sorted order) were dropped on the grounds of ambiguity, low communality, and the fact that for two of the items the factor loadings spread over the main factors, thereby suggesting a random response to those items.

The remaining thirty-three items were subjected to a further first-order image analysis and Varimax rotation. The anti-image covariance matrix was characterised by high diagonals and negligible non-diagonals. Therefore the items were considered to be representative of the universe of content, and a factor analytic solution was assumed to be appropriate.

The image analysis and Varimax rotation generated sixteen factors with eigenvalues greater than one. However only the first five of these factors contained significant loadings. There is a distinct cut off after factor five and so the remaining eleven factors were regarded as trivial ones and were excluded from further analysis. The communalities were generally high (thus reinforcing the reliability of the items) and these are reported along with the Varimax rotated factor matrix in the Appendix (see Appendix C, p.226, Table 25). As with the previous measures, the items were re-sorted for display purposes into the originally hypothesised dimensions. The re-sorted order is presented on p.227a).

The five significant factors identified by the image analysis and orthogonal rotation were then rotated obliquely according to the direct oblimin criterion, with simple structure being obtained at Delta = 0.43 (again indicating that the rotation was very oblique). The pattern of factor loadings (see Appendix C, p.228, Table 26) was

rather different from that which could have been expected from the specification of the hypothesised dimensions (supra pp.76-7). Following a careful examination of the factor loadings, the factors were identified as follows:

Factor 1: Personal Development
Factor 2: Vocational Preparation
Factor 3: Intellectual/Moral Disciplines
Factor 4: Maturity
Factor 5: Certification

Factor One incorporates many items from the a priori intellectual, social, and personal categories. Examination of the items that load significantly on this factor suggests that they are all primarily concerned with the basic tasks that the secondary school might realise for each individual student. The common, underlying thread seems to be a concern for the personal development of the student and the optimal development of his potential, with regard to intellectual, personal, and social capabilities. Hence this factor was labelled 'Personal Development'.

Factor Two has significant loadings on the original vocational items (except for those items pertaining to exams) and also includes four other items which essentially emphasise the development of new interests or abilities, and the capability of working in a group. These items share a concern with preparing the student for later occupations - primarily through developing his interests, career appropriate skills, and by providing career information and advice. This factor, then, basically focuses on 'Vocational Preparation'.

Factor Three is rather a complex one to interpret in that it has significant loadings on items relevant to seeking, obtaining, and retaining knowledge, and also on items which have a distinctly 'moral' overtone (in that they emphasise right and wrong, and law and order).

Thus it seemed to reflect a concern with 'equipping' the student with certain intellectual and moral knowledge and attitudes. Consequently it was labelled 'Intellectual and Moral Disciplines'.

Interpretation of Factor Four was made difficult by the fact that only two items loaded significantly on it. However one other item tended towards significance, and a few others had relatively high (though not significant) loadings. Examination of these items, plus the items which loaded negligibly - in the hope that they could clarify the dimension by offering a contrast with it - suggested that these seemingly diverse items could be linked by a concern with the rights of the student in the sense that they related to developing the student's maturity. Hence the factor was identified as 'Maturity'.

Finally, Factor Five was readily interpreted as being concerned with qualifications and examinations. Thus a factor identifiable as 'Certification' emerged from the a priori vocational category as a separate, distinct factor.

The correlations between these five first-order factors, along with significance values, are presented in Table 13 below.

TABLE 13

Correlations between the first-order factors (or dimensions) of perceived conflict of values

Factors	1	2	3	4	5
1. Personal Development	1.00	-	-	N = 657	
2. Vocational Preparation	0.84	1.00	-	p 0.01 = 0.10 p 0.05 = 0.075	
3. Intellectual/Moral Disciplines	0.77	0.75	1.00	-	-
4. Maturity	0.26	0.19	0.14	1.00	-
5. Certification	0.39	0.47	0.34	-0.20	1.00

As can be seen from an examination of Table 13, all the correlation coefficients are significant at the (0.01) level of probability. Of note is the relatively low correlation of Maturity with the other factors. This suggests that more than one second-order factor is likely to emerge from the second-order analysis.

Factor scores were collected from this first-order analysis and, after they had been checked, were subsequently submitted to a second-order factoring where two general factors were obtained (only one of which had an eigenvalue which exceeded one). The results of the second-order factor analysis and Varimax rotation are presented in Table 14 below. The communalities, also reported in Table 14, were all sufficiently high, thus attesting to the reliability of the first-order factors.

TABLE 14

Second-order factor analysis of the conflict of values data

A: Unrotated factor matrix

	Dimensions	Factor 1	Factor 2	Communality
1.	Personal Development	0.95	0.15	0.93
2.	Vocational Preparation	0.95	0.01	0.91
3.	Intellectual/Moral Disciplines	0.87	0.05	0.76
4.	Maturity	0.17	0.52	0.30
5.	Certification	0.68	-0.42	0.64

B: Varimax rotated factor matrix

	Dimensions	Factor 1	Factor 2	Communality
1.	Personal Development	0.91	0.32	0.93
2.	Vocational Preparation	0.94	0.18	0.91
3.	Intellectual/Moral Disciplines	0.85	0.20	0.76
4.	Maturity	0.07	0.54	0.30
5.	Certification	0.74	-0.30	0.64
General Factor Names:		'Conflict over Present-Oriented Values'	'Conflict over Future-Oriented Values'	

Examination of the second-order factoring in Table 14 indicates that all the first-order factors (except Maturity) load very highly and significantly on the first general factor, while Maturity loads significantly on the second general factor (as also does Personal Development, with Certification having a negative loading which tends towards significance). The factors loading on the first general factor seem to have in common the fact that they represent what the school should do for students here and now - in this sense they can be viewed as representing present or immediate school values. Hence this factor was identified as Conflict over Present-oriented School Values. The second general factor is characterised by the Maturity dimension, and by Personal Development. This seems to clearly indicate the longer-term values (or perhaps the effects of the present-oriented values) of the school - those values which go beyond the everyday 'business' of school life to a conception of the student as an adult. (Therefore, it is understandable that this factor fails to load on the first general factor since the development of the student as a mature adult, capable of making, and being accountable for, his own decisions, and so on, is not a primary motivational force when it comes to school values and functions as to what the school should do for the student now.) This second general factor was defined as Conflict over Future-oriented School Values. The loading of Personal Development on this factor fits such an interpretation, since the development of the student's potential does have implications for his future status as an adult. Likewise Certification also has 'future' implications. Furthermore, it is interesting to note that while the Certification dimension loads negatively on this factor, it nevertheless loads positively on the first general factor.

Factor scores were collected from this second-order factoring

and saved for later insertion into the regression equation. Thus the subjects' scores on thirty-three of the original thirty-six items in the conflict of values scale can now be represented by two composite scores which will be used as predictor variables in the multiple regression equation.

Conclusion: From the results of the first-order image analysis it can be concluded that the conflict of values data may be adequately represented in terms of the following dimensions: Personal Development, Vocational Preparation, Intellectual and Moral Disciplines, Maturity, and Certification. These dimensions were rather different from the a priori categories previously described (supra p.76-7) and therefore hypothesis five, as specified in Chapter VI (supra p.103), must be rejected as it stands. The second-order analysis indicated that these five dimensions could be subsumed under two general second-order factors identifiable as Conflict over Present-oriented School Values, and Conflict over Future-oriented School Values. In Chapter VI (supra p.103) it had been hypothesised that a second-order factoring would indicate the presence of a single, second-order factor. This hypothesis - hypothesis six - must be rejected in that although the second-order analysis revealed the presence of two related general factors, this finding nevertheless differed from the hypothesis as regards the number and identity of the second-order factors.

(4) Achievement Motivation Results

The ten items of the achievement motivation scale were submitted to a first-order image analysis and orthogonal rotation. However, inspection of the anti-image covariance matrix indicated that the values in the diagonals were low and a number of relatively high sub-diagonals occurred. On this basis it was concluded that the items in the scale

were not representative of the universe of possible items, and that it was not appropriate to factor analyse the items in the scale.

Since the image analysis failed to support a factor analytic reduction, each subject's scores on the separate items in the scale were simply summed and these raw scores were entered as a predictor variable in the regression equation. The mean of these scores, and the standard deviation, are presented above in Table 8 (supra p.125).

Conclusion: Image analysis of the achievement motivation scale indicated that the items were not amenable to factor analytic techniques. Consequently hypothesis seven in Chapter VI (supra p.103) must necessarily be rejected.

III. MULTIPLE REGRESSION

Plots

A primary assumption underlying multiple regression is that the predictor variables are linearly additive. This requires confirmation through the examination of scatter plots. Firstly, in order to examine the residuals (that is, measures of the error component) trial plots of all the regression residuals were obtained. Examination of these scatter plots enable the researcher (a) to determine whether or not each of the variables (with the exception of the dummy variables - sex, family structure, and working status of mother) to be entered in the regression equation are linearly additive. In cases where there is a lack of linearity, the scatter plots can be used to give indications as to what kind of transformation would be most appropriate; and (b) the scatter plots can provide further information in that, as Nie *et al.* (1975, p.341) comment: 'In regression analysis, it is assumed that the error components (1) are independent, (2) have a mean of zero, and

(3) have the same variance throughout the range of Y values. Serious violations of the foregoing assumptions are usually detectable through an examination of residuals'.

Plots were obtained for all variables bar the dummy variables and, with one exception, these plots suggested a close approach to such linearity and additivity. However the conflict of values plots indicated that the difference scores for this scale formed a sharply truncated spread (refer to these plots in Appendix D, Figures 8 and 10). Therefore it is likely that the conflict of values scores could be abnormally distributed. The overall pattern of the scatter plot for all residuals (except the dummy variables) is presented in the Appendix (Appendix D, p.231a, Figure 6. Note that the residuals are represented by the vertical axis and are plotted against the criterion which is represented by the horizontal axis in the figure). An examination of this overall pattern indicated an abnormality in the plot - namely, a curvature which indicated the need for an appropriate transformation.

Examination of the residual plot mentioned above, suggested that it could be described as being indicative of a hyperbolic[1] distribution. The appropriate transformation would be a logarithmic one or, even better, a square root transformation. Such a transformation has been known to '... equalize the variance, reduce the skew, and linearize relationships to other variables' (Cohen and Cohen, 1975, p.252). The square root transformation was therefore tried, and inspection of the subsequent scatter plots of the conflict of values residuals (see Appendix D, Figures 7, 9 and 11) did suggest that it had tended to normalise the distribution of the residuals. Therefore a square root transformation of the second-order conflict of values factor scores was carried out, and these transformed scores were

1. As suggested by the author's supervisor.

subsequently entered into the regression equation. The importance of such data transformations cannot be underestimated since not only do they 'linearize' relationships among the variables, but they also enable these variables to meet the formal statistical assumptions of regression analysis mentioned previously (supra p.146). Thus transformation of the data enables a mathematically 'better line of fit'.

Regression

The multiple regression (standard method) was carried out with the control variables being entered as a single group in the first step, and the experimental variables being entered as a group in the second step. The results of the regression are summarised in Tables 15, 16 and 19.

TABLE 15

Significance of the squared multiple correlation coefficient: The 'overall' F test

	Analysis of Variance	DF	Sum of Squares	Mean Square	F value	Significance
Multiple R 0.66736						
R Square 0.44537	Regression	15	256.00853	17.06724	34.31568	$p < 0.01$
Standard error 0.70524	Residual	641	318.80757	0.49736		

As can be seen from Table 15 above, the squared multiple correlation coefficient is significant beyond the 0.01 level of significance (see Footnote 2, supra p.115) which negates the possibility of dismissing this coefficient as being due to chance or error. Therefore the null hypothesis as specified above (supra p.103) must be rejected, and experimental hypothesis eight may be accepted.

TABLE 16

Summary table indicating the specific contribution to variance of school alienation with regard to each variable in the regression, with regression coefficients (B's) included to indicate the direction of the relationship.

Variables	Multiple R	R square	RSQ Change	Sum of Squares for each variable	F value	Significance	B
Sex	0.00458	0.00002	0.00002	0.012	0.024	NS	-0.02700
Past success	0.10454	0.01093	0.01091	6.271	12.61	$p < 0.01$	0.00980
School clubs	0.33803	0.11426	0.10334	59.402	119.435	$p < 0.01$	-0.22710
Non school clubs	0.35094	0.12316	0.00889	5.11	10.275	$p < 0.01$	-0.02901
Occup. aspiration	0.38184	0.14580	0.02264	13.014	26.166	$p < 0.01$	0.03910
Occup. expectation	0.39302	0.15446	0.00866	4.978	10.009	$p < 0.01$	0.05808
Both parents	0.40054	0.16044	0.00597	3.432	6.90	$p < 0.01$	6.67042
Solo parent	0.40054	0.16044	0.00000	0.00	0.0	NS	6.77596
Socio-eco. status	0.40079	0.16063	0.00019	0.109	0.220	NS	0.02280
Working mother	0.40096	0.16077	0.00014	0.081	0.162	NS	0.02831
Bur. Organisation	0.60590	0.36711	0.20634	118.609	238.477	$p < 0.01$	0.38065
Dev. of Expertise	0.64957	0.42193	0.05482	31.512	63.358	$p < 0.01$	-0.21754
CV Future	0.65898	0.43426	0.01232	7.082	14.239	$p < 0.01$	0.55153
Ach. motivation	0.65899	0.43427	0.00001	0.006	0.012	NS	0.00170
CV Present	0.66736	0.44537	0.01110	6.381	12.829	$p < 0.01$	0.31099
Constant							-10.01345

Note: For significance of F, see footnote, 3, supra p.116.

Table 16 presents a more specific analysis of the results in that it indicates the specific incremental contribution to variance of school alienation that is made by each of the variables in the regression equation. An inspection of Table 16 indicates that all variables in the equation explain 44.53% of the total variance of school alienation - this can be further divided into the 16.08% that is contributed by the control variables, and 28.45% which is contributed by the experimental variables. The control variables will be discussed first, followed by an analysis of the contribution made by the experimental variables.

The Control Variables. Prior to interpreting Table 16, it is useful to consider the means, standard deviations and ranges of the control variables since this information could be of use in aiding interpretation of the results. The relevant data here is presented in Table 17.

TABLE 17

Means, standard deviations and ranges of the control variables in the regression equation

Variable	Mean	Standard deviation	Range
Sex	0.49	0.50	
Age (in months)	177.75	5.15	153 - 192
School clubs	1.29	1.21	0 - 4
Non school clubs	1.11	1.03	0 - 4
Occupational aspiration	2.81	1.36	1 - 6
Occupational expectation	3.05	1.31	1 - 6
Both parents	0.90	0.30	
Solo parent	0.10	0.30	
Socio-economic status	3.41	1.31	1 - 6
Working mother	0.53	0.50	

Note: N = 657.
Age is a substitute for past success.

Before discussing the control variables further, it must be borne in mind that since control variables are being commented on, any comments made or any trends suggested must be treated with caution; in addition to this caveat, several of the controls were dummy variables and this further limits interpretation of the results.

The first control variable was that of sex. From Table 17 it can be seen that 49% of the sample consisted of female students, and 51% were males. Sex did not make any significant incremental contribution to variance of school alienation. This could be expected, since research studies reveal ambiguous findings with regard to the relationship between sex and school alienation (supra pp.45-6).

Age, which was used as an indication of past success, made a significant incremental contribution to variance. (The range of ages extended from 153 to 192 months, with the average age being approximately fourteen years eight months.) Little else can be said about achievement or success since age was the only measure used.[1] It is apparent, however, that it is important to establish some control over achievement, since its significant incremental contribution to variance is indicative of a relationship with school alienation. Other measures that could be taken, for instance, could include prizes a student has attained, places in class, and so on. Although little can be said about this relationship, due to its status as a control variable, one is nevertheless reminded of the various studies that have investigated alienation and achievement (Pulvino and Mickelson (1972), and Flumen (1974), to mention a few).

The next two control variables were concerned with membership in (a) school and (b) non-school organisations. Since these measures were based on a scale which ranged from zero to four, more data are available

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1. The class stream that students belonged to could have provided further information in this respect, but unfortunately this data was lost, due to the fact that the scripts from the various classes were already mixed when returned to the researcher.

for interpretation. Table 17 indicates that students belong to more school clubs than non-school clubs, with the average being about one. This is further supported by Table 16 which indicates that the relationship between membership in school organisations and alienation is greater than that between school alienation and membership in non-school organisations. And examination of the regression coefficients in Table 19 indicates that these variables relate negatively to school alienation - that is, as school alienation increases, membership particularly in school organisations but also in non-school organisations (though to a lesser degree) decreases, as one might expect. The differing sizes of these incremental contributions to variance of school alienation tends to suggest that alienation is a context-specific phenomenon.

The control variables relating to students' occupational aspirations and expectations also made significant incremental contributions to variance of school alienation, again more so in the former than in the latter case. These two variables were measured on a scale which ranged from one (indicating professional occupation) to six (indicating unskilled occupations). Examination of Table 17 indicates that students' occupational aspirations exceed their expectations. It may be that this 'discrepancy' frustrates students, which could relate to dissatisfaction with school, as is reflected in the relationship between school alienation and these two measures.

The two control variables relating to family structure took the form of dummy variables and although the first of these (that is, whether or not the student was living with both parents) did make a significant contribution to variance of school alienation, little more can be said due to its status as a dummy variable. However, from Table 17 it can be observed that 90% of students in the sample are living with both parents, while 10% are living with one parent.

The control variable of socioeconomic status is essentially a measure of occupational status based on the father's occupation - or on the mother's in cases where the father is absent. The variable was scored on a scale ranging from one to six, as was the case with students' occupational aspirations and expectations. It is rather surprising that its incremental contribution to variance was non-significant. This could suggest that there is no differentiation between classes when it comes to attitudes, beliefs, and so on, about education. Or, more likely, the non significant incremental contribution may reflect the fact that occupational status alone is an inadequate measure of socioeconomic status, and needs to be accompanied by measures of income and education.

The final control variable concerned whether or not the student's mother was working. Again interpretation is severely limited because of the fact that this control variable was inserted as a dummy variable into the equation. All that can be said is that, as can be seen in Table 16, its incremental contribution to variance of school alienation is non-significant.

Conclusion. It may be concluded that the control variables explained approximately 16% of the total variance of school alienation. Interpretations have been made where possible, though with caution due to the fact that these variables are, after all, only the control variables, and some were treated as dummy variables which restricted interpretation even further. However, from the results noted in the two relevant tables above, it may be concluded that the data provides justification for establishing controls over these 'extraneous' variables since

(i) by establishing this statistical control, approximately 16% of the variance was accounted for, and thus

(ii) these control variables have been possibly prevented from

acting through the experimental variables and confounding the relationships between the experimental variables and school alienation.

The Experimental Variables. As has been indicated, the experimental variables accounted for 28.45% of the total variance of alienation. The analysis of the findings regarding these variables will be primarily based on the results presented in Table 16 above, although the means and standard deviations for the experimental variables are also of interest and are presented in Table 18 below.

TABLE 18

Means and standard deviations of the experimental variables in the regression equation

Variable	Mean	Standard deviation
School Alienation	0.00	0.94
Bur. Organisation	-0.00	0.94
Dev. of Expertise	0.00	0.96
Ach. motivation	20.32	4.62
CV Present	1.29	0.35
CV Future	2.02	0.19

Note: N = 657.

Factor scores are standard scores which have a mean of zero and a standard deviation which closely approximates one. Hence the zero means for school alienation and the two bureaucracy variables. The conflict data has been transformed, hence the conflict means are not zero.

As can be seen from Table 16 the first of the two bureaucracy factors - previously defined as Bureaucratic Organisation - makes a substantial incremental contribution to variance which is significant beyond the p (0.01) level. Furthermore, Table 19 indicates that there is a strong, positive relationship between students' perceptions of the bureaucratic organisation aspect of the school and school alienation.

Development of Expertise (the second 'bureaucracy' factor) also makes an incremental contribution to the variance of school alienation which is significant at the p (0.01) level. Of note, however, is the fact that this second factor does not relate as strongly to school alienation as did the first factor and, perhaps more importantly, the relationship is a negative one (as can be seen by the regression coefficient B in Table 16 above). Thus although the development of expertise aspect of the school is significantly related to school alienation, the relationship is negative and therefore has a different meaning from the positive relationship between the first factor and school alienation.

Conflict over Future-oriented School Values makes a significant, incremental contribution to variance of school alienation, with the relationship between the two variables being positive in direction. Conflict over Present-oriented School Values also makes a significant incremental contribution to variance of school alienation, and again the relationship between the two is positive. Of interest is the fact that the former makes a greater contribution to variance than the latter conflict of values factor.

The final experimental variable was that of achievement motivation which, it will be recalled, was represented as a summed raw score in the regression equation. Its incremental contribution to variance in school alienation was negligible - and non-significant. It would seem that there are two possible explanations for this result: (a) that students do not differ markedly with regard to achievement motivation; or (b) that the measure of achievement motivation was an inadequate one.

Conclusion. On the basis of Table 16 above, it can be concluded that ten of the fifteen variables entered in the regression equation made significant incremental contributions to variance of school alienation. Of the five that failed to do so, four were controls and one was an

experimental variable,

With regard to the experimental variables, the two general factors regarding students' perceptions of the bureaucratic structure of the school made incremental contributions to variance which were significant beyond the 0.01 level of significance. Therefore the null hypothesis can be rejected and experimental hypothesis nine as specified above (supra p.103) is accepted.

Similarly the two general factors relating to conflict of values also made incremental contributions to variance of school alienation which were significant beyond the 0.01 level of probability. On this basis it may be concluded that the null hypothesis may be rejected, and experimental hypothesis ten as previously specified (supra p.103) is accepted.

Finally, achievement motivation failed to make a significant incremental contribution to variance of school alienation. Therefore the null hypothesis relating to this specific experimental variable must be accepted.

The Prediction Equation

Given that the primary concern of this research was to examine the nature and structure of the relationships between sets of variables in order to accept or reject hypotheses, the use of results for purposes of predicting school alienation was of minor concern. However, since virtually all of the experimental hypotheses were accepted, it is possible to respecify the prediction equation. Table 19 indicates the significance of the regression coefficients (B's) of the individual variables entered in the regression equation. Thus on the basis of the information contained in Table 19, the prediction equation may be re-specified as follows:

TABLE 19

Summary table indicating the significance of the regression coefficients (B's) of the variables entered in the regression equation

Variable	B	Standard error of B	F value	Significance
Sex	-0.02700	0.05871	0.212	NS
Past success	0.00980	0.00556	3.109	NS
School clubs	-0.22710	0.02439	86.705	$p < 0.01$
Non school clubs	-0.02901	0.02772	1.096	NS
Occup. aspiration	0.03910	0.02671	2.142	NS
Occup. expectation	0.05808	0.02829	4.214	$p < 0.05$
Both parents	6.67042	11658.26249	0.000	NS
Solo parent	6.77596	11658.26249	0.000	NS
Socio-eco. status	0.02280	0.02284	0.996	NS
Working mother	0.02831	0.05690	0.247	NS
Bur. Organisation	0.38065	0.03337	130.107	$p < 0.01$
Dev. of Expertise	-0.21754	0.02960	54.002	$p < 0.01$
CV Future	0.55153	0.14964	13.585	$p < 0.01$
Ach. motivation	0.00170	0.00636	0.071	NS
CV Present	0.31099	0.08681	12.834	$p < 0.01$
Constant	-10.01345			

Note: For significance of F, see footnote 4, supra p.116.

$$Y' = -10.013 - 0.027(\text{Sex score}) + 0.01(\text{Age score}) - 0.277(\text{School clubs score}) - 0.029(\text{Non-school clubs score}) + 0.039(\text{occup. asp. score}) + 0.058(\text{Occup. exp. score}) + 6.67(\text{Both parents score}) + 6.78(\text{Solo parent score}) + 0.022(\text{Socio-ec. score}) + 0.028(\text{Working mother score}) + 0.381(\text{Bureaucratic Org. score}) - 0.218(\text{Dev. of Expertise score}) + 0.311(\text{Confl. Present values score}) + 0.551(\text{Confl. Future values score}) + 0.002(\text{Achievement motivation score}).$$

The significance of the variables, as indicated in Table 19, determines the relative importance of each of the variables in the equation. Therefore, for the above equation, the most 'important' scores are those deriving from the variables of: membership in school clubs, student's occupational expectation, Bureaucratic Organisation, Development of Expertise, Conflict over Present-oriented School Values, and Conflict over Future-oriented School Values. By means of the above equation, it would be possible to calculate a predicted school alienation score for any given combination of the above variables - the accuracy of the prediction being reflected by the standard error of estimate for the regression equation (as specified in Table 15).

CHAPTER IX

DISCUSSION OF THE RESULTS, AND CONCLUSIONS

In order to bring as much clarity and cohesion to this chapter as possible, it is proposed to discuss and draw implications from firstly, the distribution and factor analytic results - taking each scale in turn - and secondly, the regression results. This will be followed by a summary of the conclusions that emerge from the study. Attention will then turn to a discussion of the ways in which school alienation might be reduced, particularly in the light of the findings of this research. A criticism of any weaknesses in the study will then be made, and the chapter will conclude with some suggestions for future research in this area.

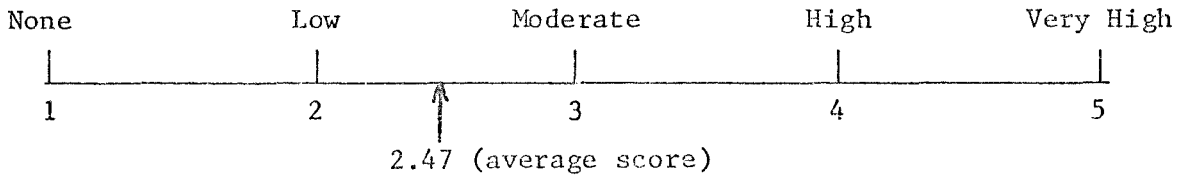
I. DISTRIBUTION AND FACTOR ANALYSES

(1) School Alienation

As has been pointed out in the results chapter, the average score for the sample as a whole on the school alienation measure was 2.47, which seems to be indicative of considerable school alienation. At this point, it may be useful to locate this score on a scale, as in Figure 2 below.

FIGURE 2

Scale indicating 'degree' of school alienation



However, since the crucial validation study could not be carried out, it is difficult to determine the meaning of these 'degrees' of alienation. Given that one might expect the majority of school students to be satisfied with school, and also taking into account the distribution of responses (particularly in the higher categories '3' and '4'), it would seem that there is a considerable amount of school alienation among the students in the sample. The validation data that was obtained did indicate that students' feelings about school and experts' ratings of these schools with regard to school alienation are somewhat in accord, but without obtaining some 'psychological validation' data, little else can be said about what this average score really means.

The first-order factor analysis of the alienation data revealed the presence of five factors, the composition of these factors being in accord with those identified by Anderson. However while Anderson found that all five first-order factors correlated positively with one another (1973, p.324), the first-order correlations in this research indicated that the Meaninglessness dimension correlated negatively (and highly) with all the other dimensions of school alienation. This pattern was repeated in the second-order analysis where all first-order factors loaded highly and positively on the general factor (subsequently identified as School Alienation) with the exception of Meaninglessness, which had a high negative loading on that factor. Again this contrasts with the positive loading of that dimension on the general factor revealed in Anderson's study (1973, p.324).

The negative first-order correlation and second-order loading of the Meaninglessness dimension of school alienation is an extremely interesting and significant finding in that it suggests that the alienated student does not necessarily see school as being meaningless or irrelevant. This finding is significant in two respects: firstly, it illustrates a

point that has been indicated earlier - namely, that one can be alienated in different ways. Rafalides and Hoy (1971, p.109), for instance, have claimed that 'It is possible, if not probable, that school characteristics which foster some variants of alienation may mollify others'. Secondly, this finding implies that school may have an 'intrinsic' meaning for students. It could be more cautiously suggested that children are socialised into the expectation of school (regardless of whether or not they can see the point of it) and that the expectation "it is school" becomes incorporated into the individual's belief system and his picture of social reality. Thus it may be likely that even the alienated student imputes meaning to the school because schooling is an inevitable part of life. Support for such an interpretation is found in the work of Joos (1964) who commented on the fact that students will indulge in seemingly irrelevant activities because that is what school is about. School is so different from other experiences that it comes to have a meaning of its own, and thereby school as an institution has an 'inherent' meaning which the student accepts as being a part of life. Consequently these 'irrelevant' activities come to be imbued with meaning.

Since the 'Meaninglessness' finding is a major point of contrast between this research and that of Anderson, it seems important to briefly consider possible reasons for this difference in results. The author would tentatively query whether it reflects a cultural difference between New Zealand and Canada with regard to the value and emphasis that is placed on education. Or it may be possible that negative loading of Meaninglessness reflects age differences in the two samples - for example, it may be that as the student gets older he attaches less meaning to the school. This could, for instance, be a consequence of the increased clarification of the alienated student's concept of his future adult status, and may explain the positive contribution of the Meaninglessness dimension to school alienation

among Grade ten Canadian students.

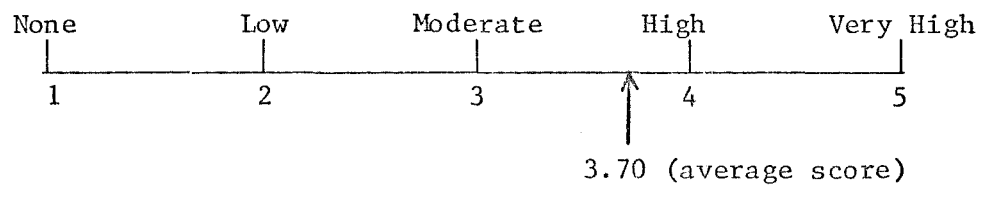
With the exception of the 'Meaninglessness' aspect, the alienation factor analytic results are similar to those obtained by Anderson in that the first-order analysis revealed the presence of five factors, which could be subsumed under a single, integrating second-order factor. From this one can infer that school alienation is composed of five correlated dimensions which, at the second level of abstraction, can be regarded as a unitary syndrome. This has substantial import with regard to the multidimensional/unidimensional debate in that it suggests a solution which is in accord with that proposed by Neal and Rettig (1967, supra p.28).

(2) Perception of School Bureaucratization

The average score on the school bureaucratization scale for the sample as a whole was 3.70 which, as is apparent in the scale shown in Figure 3 below, indicates that students perceive secondary schools as being very bureaucratic in structure. This is also reflected in Table 8 above; furthermore the relatively small standard deviation (when compared with the standard deviations for the alienation and conflict of values measures) tends to suggest that students are rather consistent in their perceptions of school bureaucratization.

FIGURE 3

Scale indicating 'degree' of perceived school bureaucratization



The relatively high degree of school bureaucratization perceived by these students is in marked contrast to that indicated by Anderson. This may be a reflection of the improvement in the scale in that the rewording of items, combined with the measure of control that was established over falsification and response sets, may have made the scale a more accurate measure of perceptions. However a more obvious interpretation of the high average score would seem to be that the score reflects the fact that secondary schools in New Zealand are actually very bureaucratic in structure. However it must be noted that the data deriving from the student scale alone cannot provide such information. However the results of the validation study (see Table 5, supra p. 99) do provide some justification for such an interpretation, in that the values of Kendall's Tau (which was significant well beyond the p(0.01) level) and Eta indicated that there was a significant correlation between the experts' ratings of schools in terms of their degree of bureaucratization, and students' scores on the bureaucratization scale. Thus the experts' ratings were in a similar direction to the students' scores, which implies that students' perceptions of the bureaucratic structure of the school may well be accurate descriptions of reality. With this in mind, one could suggest that there seems to be a clear difference between New Zealand and Canadian students with regard to their perceptions of school bureaucratization - however it is virtually impossible to ascertain the cause of this: it may be a result of the improvement in the scale, or of the age difference between the two samples of students, or it may indeed reflect a difference in the structure of secondary schools in New Zealand and Canada.

The first-order factor analysis of the bureaucratization data yielded six dimensions which were generally similar to those outlined by Anderson and hypothesised in this research, but a few of the dimensions were labelled slightly differently - the reasons for which have been

outlined in the preceding chapter (supra pp.133-5). Of particular interest is the fact that the dimension of Impersonality correlated negatively with the other dimensions, with the one exception of a positive correlation with Technical Competence (this was significant at the p(0.05) level, whereas the other correlations were significant at the p(0.01) level). Again this finding was somewhat in contrast to Anderson's first-order correlations (1973, p.322). A similar pattern emerged in the second-order analysis where the Impersonality dimension loaded negatively (and still significantly) on the factor identified as Bureaucratic Organisation of the school. It would seem, therefore, that students do not perceive that their relationships with teachers are necessarily very formal and impersonal - even as schools become more bureaucratically organised. It could be more tentatively suggested that while students may be dissatisfied with the bureaucratic organisation of their schools, this dissatisfaction does not seem to likewise pertain to teacher-student relationships, since it would seem that in general students find teachers relatively easy to get along with. With regard to the contrast between the findings of Anderson and the author in this respect, one could suggest that this may be a reflection of the fact that New Zealand secondary schools are generally smaller than those in the large cities of Canada, and smaller school size may well be conducive to more informal teacher-student relationships (Barker and Gump (1964), for instance, have provided interesting insights into the relationships between communication/ interaction patterns and school size).

It was noted in the previous chapter that Technical Competence had a low correlation with the other five dimensions of school bureaucratization. The reason for this becomes apparent when one examines the second-order factor matrices - that is, Technical Competence is perceived by students as being very different from the other dimensions of bureaucratic structure,

since the second general factor is primarily defined by this dimension. Rules and Behavioural Expectations also loads significantly on this factor, which suggests that students may recognise that in order to 'do well', one needs to conform to rules and expectations to a certain extent. Subject Matter Specialisation loads negatively on this factor (although the loading only tends toward significance) and this seems to suggest that the development of competence and expertise is not necessarily associated with specialisation in terms of subject matter.

However, one of the primary inferences to be drawn from the second-order analysis is that students clearly perceive Bureaucratic Organisation and the Development of Expertise as being distinct factors comprising the bureaucratic structure of the secondary school. This finding is similar to that of Punch (1969) who carried out a study of the nature of the bureaucratic structure of elementary schools, with the sample involved consisting of teachers. He also found that the second general factor was primarily defined by Technical Competence, and by the positive loading of Subject Matter Specialisation. Although the direction of the latter loading is different from that obtained in this research, nevertheless the implication that Punch draws from the second-order analysis is pertinent to the findings of this research as is apparent in his comment that: 'At least the definitional alternatives are clear: Either bureaucratic structure must be re-defined as a two-factor concept, or the notion of specialized, technical competence must be dropped from it' (1969, p.53). Furthermore, he suggested that the second general factor may emerge more definitely in secondary schools - a comment which is supported by the findings of this research.

A minor point to note is the relatively low correlation of Rules and Behavioural Expectations with the other dimensions defining the first general factor. This seems to suggest that students do not define

Bureaucratic Organisation purely in terms of rules - thus one might cautiously suggest that, given the age of the students in the sample, their perceptions of school bureaucratization are rather 'sensitive' and comprehensive.

On the basis of the factor analytic results, one may conclude that the bureaucratic structure of the secondary school, as perceived by fourth form students, consists of six correlated dimensions which may be subsumed under two second-order factors. Thus the bureaucratic structure of the school may be viewed as a complex of two different clusters of related dimensions. In this respect this study has contributed to the 'dimensional' or 'structure' approach (see Punch, 1969, p.45) which is primarily concerned with delineating the concept of bureaucratic structure and determining whether or not it is a unitary, homogeneous concept. This research, therefore, provides a degree of synthesis with the work of Hall and Anderson, and provides evidence for viewing the bureaucratic structure of the secondary school as a heterogeneous rather than a homogeneous concept - at least in terms of students' perceptions of that structure.

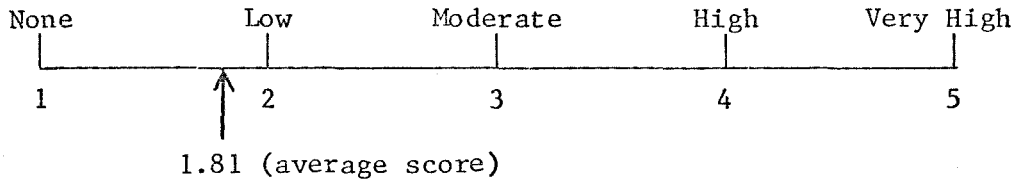
(3) Perceived Conflict of Values

The mean and standard deviation for the conflict of values data suggests that there is some diversity with regard to the responses made to the measure, although the majority of responses cluster at the lower end of the scale. This is supported by the average score for the sample as a whole which has a value of 1.81 and is presented in terms of a scale in Figure 4.

This average score was somewhat lower than anticipated, which indicates that students perceive that there is less conflict between their values and those that are put into practice in the school than was supposed. However one must also take into consideration the nature of the measuring instrument involved.

FIGURE 4

Scale indicating 'degree' of perceived conflict of values



The scores derived from the scale are difference scores, and so it is possible for students to obtain equal difference scores at different positions on the two contributory scales. However it may be possible that equal difference scores do not always represent equal conflict. This suggestion is more clearly illustrated by a schematic example such as that presented in Figure 5 below.

FIGURE 5

Example of two cases in which equivalent difference scores could possibly indicate differing 'amounts' of conflict

(i)

VERY GOOD ✓	GOOD	AVERAGE	BAD	VERY BAD
EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT ✓	RATHER DIFFERENT	VERY DIFFERENT

On a scale ranging from 1 to 5:

Difference score = 3

(ii)

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD ✓
EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT ✓	RATHER DIFFERENT	VERY DIFFERENT

Difference score = 3

Both responses indicated in Figure 5 give equivalent difference scores - however these scores may not necessarily represent equivalent 'amounts' of conflict. In the first instance the student perceives his school to be somewhat in line with his values, whereas in the second instance the school is perceived to be somewhat in line with a value which the student does not hold. The conflict involved in the second case could possibly exceed that involved in the first case, and to this extent the difference score obtained in the second instance may be an under-estimate of the 'amount' of conflict involved. However this is only a possible explanation for the 'low' average score that was obtained - the primary inference that may be drawn from the average score is that students perceive that some conflict does exist between their values and those of the school, even though the degree of conflict involved would seem to be relatively low.

To turn now to the factor analyses of the conflict of values data. The first-order factor analysis yielded five factors which were somewhat different from the a priori categories initially hypothesised - these differences are highlighted in the rationales on which the identification of the factors was based (supra pp.140-1). However while the 'names' of the factors differ from those of the logical factors initially hypothesised, there are points of similarity which need to be noted. For instance, many of the original 'Intellectual', 'Social', and 'Personal' items merged into the single factor of Personal Development. Likewise the Vocational Preparation factor closely resembled the original 'Vocational' category, but it was more comprehensive in that it encompassed not only the development of career-appropriate skills but also other aspects of vocational preparation such as clarifying the student's interests and developing his ability to work in a group. This illustrates the useful function fulfilled by factor analysis, in that the subsequent readjustment of the initial logical factors enabled the researcher to more clearly

identify the structural interrelationships inherent in the conflict of values data.

It was noted in the previous chapter that the examination items which were initially included in the 'Vocational' category emerged as a distinct, separate factor identifiable as Certification. Taking the correlation coefficients into account as well, this would seem to imply that although students acknowledge that there is an association between vocational preparation and examinations, nevertheless they see examinations as having a 'meaning' which is 'over and above' this relationship with vocational preparation. Such an interpretation is supported by the research of Barton (1976, p.103) who also found that an examination factor emerged as a separate entity and could not be viewed as '...merely a feature' of a vocational factor.

Another point of interest in the first-order analysis was the emergence of a Maturity dimension which, as is apparent in Table 13, has a low (although significant) correlation with the other four dimensions. However it correlates negatively with Certification which tends to suggest that increasing concern with the maturity of students may be associated with a reduction in conflict over exams.

The second-order analysis (see Table 14, supra p.142) revealed the presence of two general factors. The first factor, which was primarily concerned with perceived conflict between the school and the student with regard to the tasks or functions that should characterise the student's current school experience, was defined by all but one of the first-order factors. The exception was the Maturity dimension - this loaded on the second general factor which was identified as being concerned with the perceived conflict between school and student over future-oriented values. This second-order factoring seems to suggest that the student has a clearly delineated value system with regard to the purposes of school - one that

not only takes into account current expectations as regards school life but also acknowledges that the school has a certain responsibility to the student with regard to the outcome or longer-term effects of current school experience.

In addition to the Maturity dimension, Personal Development also loads significantly on the second general factor. However one might expect that concern for the maturity of students would be associated with the development of the individual's potential. But perhaps the most intriguing finding apparent in the second-order analysis is the fact that the Certification dimension loads positively on the first general factor, and negatively on the second. This would seem to indicate that although examinations may be a point of current concern for students, this conflict over the certification function of the school nevertheless decreases when viewed from a future-oriented perspective - which implies that students are quite willing to accept examinations as an important feature of school reality and view them as being necessary for their development and future adult status. It is as if the student is unwilling to accept the necessity of having exams at school now, but is, on the other hand, willing to accept the fact that examinations and qualifications form an integral part of his future adult status. This seems to point to a common thread which binds each of these findings and reveals an interesting picture of the fourth form student's view of school - a view which, the author would tentatively suggest, seems to be instrumental in nature.

Factor analysis of the conflict of values data has enabled interpretation of the complex interrelationships contained in the data, and on the basis of these analyses one may conclude that the perceived conflict of values between the student and the school consists of five correlated dimensions which may be subsumed under two second-order factors. Thus, even though a single integrating factor did not emerge, nevertheless

these two general factors, taken together, adequately and parsimoniously describe the conflict of values data. (It must be borne in mind, though, that the measure was restricted to a conflict of values which was perceived by the student, and hence one cannot draw any firm conclusions as to the values that are actually put into practice by the school. Also, although one may conclude that clearly defined areas of conflict do exist, the analysis of the data, as it stands, provides no indication of the direction of conflict. However the primary concern of this research was to determine whether or not conflict existed, rather than the direction involved.) Thus, at the second level of abstraction, conflict of values would seem to be a complex and heterogeneous concept which consists of clusters of related dimensions.

(4) Achievement Motivation

Since image analysis failed to support a factor analytic reduction of the achievement motivation data, this discussion will be primarily concerned with considering possible reasons as to why the measure 'failed' in this respect.

The anti-image covariance matrix indicated that the items in the measure were not representative of the universe of items. Close examination of the measure indicates that it is basically concerned with competitiveness and individual striving as opposed to social, co-operative activity, and in this respect it really only measures an aspect of achievement motivation. There are other 'attitudes' or orientations which are closely intertwined with achievement motivation - for instance, level of aspiration, deferred gratification, hope of success, the desire to do well, fear of failure, risk-taking, the desire to please, and so forth. In addition there exists the possibility that achievement motivation may act indirectly through other variables, thus further confounding the situation.

Certain methodological questions must also be taken into account. Students may have rejected (or perhaps been threatened by) the forced-choice format of the questionnaire - for example, the task involved was a difficult one and students may have opted to tick both alternatives rather than discriminate, and subsequently choose, between statements which reflected personal attitudes or traits. Furthermore, it is possible that the combination of achievement and nurturance items may have been more appropriate, and perhaps posed greater conflict, for females rather than males. This may particularly apply to the readjusted pairings, since originally the items were equated for social desirability for both sexes.

Taking these points into consideration, it seems that the study would have benefited from the use of a more comprehensive measure of achievement motivation, such as that provided by the T.A.T. approach. Or had Smith's (1973) measure been located earlier it may have proved to be a more satisfactory instrument, given that the type of measure required for this research was one which reflected a 'general attitude' rather than a specific aspect of achievement motivation. Alternatively, a measure could have been designed for the study which extended the one that was used - however this possibility was 'restricted' by the limited time in which the research had to be conducted.

Therefore it may be concluded that the instrument used to measure achievement motivation tapped only one aspect of an essentially heterogeneous concept. Thus the achievement motivation data may have been more appropriately handled by not submitting it to factor analysis and treating the measure as representing a control variable rather than an experimental one.

II. MULTIPLE REGRESSION

The significance of the squared multiple correlation coefficient (Table 15, supra p.147) indicates that the regression of school alienation on all the variables entered in the equation could not have occurred by chance, and therefore the control and experimental variables do contribute to the total variance of school alienation. The R square value pertains to the magnitude of the contribution, and indicates that approximately 44.5% of the total variance of school alienation is accounted for by the combination of all the variables entered in the regression equation. Table 15 also indicates that the Standard Error estimate has a value of 0.705. This estimate is primarily concerned with the accuracy of prediction, and can be interpreted as meaning that the predicted school alienation scores will deviate from actual school alienation scores by 0.705 units on the school alienation scale. This is extremely relevant to the prediction equation elaborated in the previous chapter (supra p.157).

The main emphasis in this research was to examine the dependence of the criterion variable on the set of variables (particularly the experimental variables) that were entered in the equation. Thus discussion of the regression results will primarily revolve around the interpretation of Tables 16 and 19 above (supra p.148 and p.156). Table 16 indicates the specific or incremental contribution that any variable makes to the variance of school alienation. However it is often more informative to know the relative importance of any variable in predicting school alienation, and this information is given in Table 19 which indicates the significance (and direction) of the relationship between an individual variable and school alienation. In addition, the second-order factor analyses aid interpretation of the regression results.

To turn, then, to a consideration of the results. The control variables will be dealt with first, but only briefly since the experimental

variables are really the focus of interest. Table 16 indicates that the control variables contribute 16.08% to the variance of school alienation (which is considerably greater than the 7.8% contribution that Anderson obtained. However, the cause of this difference is virtually impossible to identify). It has already been noted that six of the ten control variables made incremental contributions to variance which were significant at the p(0.01) level. Since these have already been commented on (supra pp. 149-153) the present discussion will be confined to two of the control variables, since Table 19 indicates that the most important contributions made by the control variables are those concerning membership in school clubs, and student's occupational expectation.

With regard to membership in school clubs, this variable made a specific contribution of 10.33% to the variance of school alienation, and is related negatively to the criterion variable. Essentially this means that an increase in school alienation is associated with a decline in school club membership. Thus the alienated student is likely to belong to fewer school clubs than the committed student. Such an interpretation is in accord with other studies such as those of Beneke (1970), Burbach (1972), Anderson (1973), Holzwarth (1974), and Marquis (1974). The implication of this finding seems to suggest that dissatisfaction with school may extend to the more informal and voluntary groups that are established within the school situation. Therefore the author would tentatively infer that school alienation tends to generalise to various aspects of school and is not necessarily confined to the more formal classroom situation. A further point of interest is the non-significant relationship between non-school club membership and school alienation. This could perhaps be interpreted as indicating that school alienation seems to be context-specific and restricted to the school milieu, and if this is so then it further suggests that alienation from school need not

necessarily imply alienation from society. Such an inference, tentative though it may be, would provide some support for those researchers who advocate a context-specific approach to the study of alienation (supra pp.35-7). It also provides some 'indirect' validation evidence in that it suggests that the alienation measure used in this research did measure school alienation (though it will be recalled that this measure was one of subjective or 'S-alienation' and not of alienated acts).

The other 'important' control variable was student's occupational expectation, which made an incremental contribution of 0.87% to the variance of school alienation and also related positively to that variable at the p(0.05) level. Bearing in mind that the scale measuring occupation was such that the '1' indicated 'high' and '6' indicated 'low', the relationship between these two variables means that as a student becomes alienated from school, his occupational expectation is likely to become lower in terms of the occupational hierarchy. Furthermore, if one pursues a 'mobility' interpretation, the nature of this relationship would seem to imply that students who are alienated from school also tend to be 'downwardly mobile'. The relationship between student's occupational expectation and school alienation was an interesting one, and also surprising to some extent since previous studies such as those by Meier and Bell (1959), Han (1969), Burbach (1972), and Wilson (1973) emphasised the relationship between aspirations and alienation, with expectations usually only being incorporated to enable a measure of the discrepancy between aspirations and expectations. However in this research the relationship between aspirations and school alienation proved to be insignificant, as was that between aspiration-expectation discrepancy and school alienation. Also, it has previously been suggested that students seem to have an instrumental view of school - if this is the case, then one might well expect that the student's perception of his future

occupational status would decline as he became alienated from school.

One may conclude, therefore, that although several of the control variables made significant incremental contributions to the variance of school alienation, the most important of these in terms of individual relationships to school alienation are those of school club membership and student's occupational expectation. Therefore any future research in this area would need to take account of these variables, whether it be by establishing control over them, or by treating them as experimental variables in order to further investigate the nature of their relationships to school alienation.

The experimental variables in this research explained 28.45% of the total variance of school alienation. The two factors relating to the bureaucratic structure of the school will be discussed first, followed by the two conflict of values factors, then finally achievement motivation.

Examination of Tables 16 and 19 indicates that the general factor of perceived Bureaucratic Organisation makes a substantial, and obviously significant, incremental contribution of 20.63% to the variance of school alienation. Furthermore, the relationship between these two variables is positive in direction. Essentially, this relationship may be interpreted as indicating that school alienation and perceived bureaucratic organisation are strongly associated and that change in one is likely to be associated with a similar change in the other. Therefore increasing bureaucratic organisation of the school (as perceived by students) is likely to be associated with an increase in school alienation. This seems to suggest that the bureaucratic organisation characterising the school is a source of dissatisfaction for students, and is thereby related to students' alienation from school. Furthermore, it is not surprising that this relationship is such a strong one - for instance, it would seem plausible to suggest that the prospect of being able to be ordered around by persons higher in the

school hierarchy, and a lack of control over decision-making, may well be associated with student feelings of powerlessness in the school situation. (However the regression analysis only enables the researcher to identify the relationships between general factors, therefore it would be invalid to make too many inferences about the possible relationships between specific dimensions of these general factors - Kolesar (1967), for instance, actually found that the particular dimensions of student alienation were not all necessarily related to the structure of the school system). Nordstrom *et al.* (1967, p.131) seem to underline the interpretation that has been made of the relationship between perceived bureaucratic organisation of the school and school alienation in their comment that '... the school is especially important for an industrial-bureaucratic society. This is because the school as an institution is radically alienated and alienating. The structure imposed is cleanly reified and functions on an abstract level, in the image of society itself'. However it may be that other features of school life counteract this effect to some extent - consider, for instance, the relatively informal nature of teacher-student relationships that was suggested by the first-order correlations. (Also of relevance is Rhea's (1968) concept of the 'myth of institutional paternalism' with regard to the alienation-bureaucracy relationship.)

Since the relationship between the perceived bureaucratic organisation of the school and school alienation is such a strong one, it seems inevitably to give rise to the question of causality. This matter was discussed in some detail in an earlier chapter (supra pp.111-113) since the decision that was reached with regard to this issue determined the statistical model that would be most appropriate for the regression analysis. Since a correlational model was adopted, one cannot infer that the relationship between school alienation and bureaucratic organisation

is necessarily unidirectional and causal. Also, emphasis has been placed on the fact that students' perceptions were being measured (though the bureaucratization validation data suggested that students' perceptions may possibly be accurate descriptions of reality) and that school alienation is envisaged as being an instance of S-alienation. However, certain comments can be made which do have a bearing on the causality issue. Firstly, the relationship between the perceived bureaucratic organisation of the school and school alienation is a very strong one in that bureaucratic organisation makes a substantial contribution (20.63%) to the variance of school alienation; secondly, it is unlikely that the bureaucratic organisation of the school will change appreciably during a student's school life. Yet one must also take into account the importance of the 'back action' that occurs between an individual's perceptions and social reality; and in any one context an individual may be alienated for a variety of reasons. Wegner, for instance, has pertinently commented that 'Different types of alienation probably stem from ... alternative sources of discontent. Persons alienated for different reasons may contrast in their beliefs and perception of the social context in what events heighten or lessen their alienation...' (1975, p.188). In view of the above discussion, the author would tenatively suggest that a major part of the relationship between the criterion and predictor variable may well be causal - though such causality would be more likely to be reciprocal, or mutually reinforcing, than unidirectional in nature (for instance, there may be a feedback or interplay between school alienation and the bureaucratic organisation of a school).

Although causality cannot be established in this research, it is possible to determine the causal contribution of the variables by using such techniques as the cross-lagged panel correlation technique, the frequency-of-shift-across-median technique, and the frequency-of-change-in-

product-moment technique (here the reader is referred to Yee and Cage, 1971). However the requirements of these techniques raised several problems (for instance, the question as to whether re-testing would be acceptable to schools, the restricted time available, and so on) which meant that such analysis was beyond the scope of the present study.

The second aspect of the perceived bureaucratic structure of the school - Development of Expertise - made an incremental contribution of 5.48% to the variance of school alienation which was significant at the p(0.01) level. Furthermore, as an individual variable, it relates significantly and negatively to school alienation. This means that increasing emphasis on the development of expertise aspect of the school is not necessarily associated with an increase in school alienation, which would seem to suggest that students are willing to accept this aspect of school. Perhaps it could be suggested that development of expertise has a bearing on the possible 'intrinsic' meaning of the school in that 'excellence' and 'competence' may be perceived by students as being part of the meaning of school.

The basic conclusion to be drawn from interpretation of these results is that student dissatisfaction tends to centre on the perceived bureaucratic organisation of the school, and it is this organisational aspect of bureaucratic structure that is strongly associated with school alienation. However not only do students recognise that the development of competence or expertise is also a part of school structure but they also seem to be quite accepting of this functional aspect of bureaucracy (as is underlined by its negative relationship to school alienation). Therefore it would seem that the perception of school as an arena of excellence is quite compatible with the student's construction of social reality, and as such is not viewed as a reason for dissatisfaction or discontent. The implication of all this would seem to be that one cannot

generalise about the 'bureaucracy-alienation' relationship in the high school, since the data suggests that students are rather specific and particular with regard to the aspects of bureaucratic structure which contribute to school alienation. This interpretation seems to be somewhat akin to Ratsoy's comment that '... it may be more meaningful to speak of a given organization ... as being more, or less, bureaucratic on this or that dimension of bureaucracy rather than to make statements about any "composite" level of bureaucratization for the organization ...' (1973, p.168).

Finally, it must be noted that the two general factors of the perceived bureaucratic structure of the school together accounted for 26% of the variance of school alienation. This is considerably greater than the 4.6% found by Anderson (1973), and the 9% found by Griego (1974). Reasons for such a difference have been considered, and it has been observed that it is virtually impossible to identify the cause of this difference. However the findings of this research do cast some doubt on Anderson's (1973, p.330) suggestion that '...theories which locate the source of alienation in work environments may be incorrect'. Furthermore, it suggests that modification of a school's organisational structure (in the direction of decreasing bureaucratic organisation) may well have beneficial effects on students' atttitudes towards school.

To move now to a consideration of the conflict of values data. Conflict over Present-oriented School Values (the first of the general factors) makes a significant incremental contribution of 1.11% to the total variance of school alienation. Further, Table 19 indicates that its individual relationship to school alienation is also significant at the p(0.01) level and is positive in direction. This means that there is an association between school alienation and perceived conflict between student and school with regard to fostering the knowledge, skills,

attitudes, and experiences that are essential for the student's personal development, his preparation for a future occupation, his acquisition of certain intellectual and moral knowledge and skills, and his attainment of qualifications. It would seem, therefore, that the perceived conflict between student and school with regard to this 'everyday business' of school is related to school alienation in such a way that any perceived increase in that conflict is likely to be associated with an increase in school alienation. This implies that this conflict is a source of dissatisfaction for students - however, one might expect that a student would become dissatisfied or disillusioned with any aspect of school life which he cannot reconcile with his values and expectations about school experience. Such discontent may well be associated with various aspects of alienation, especially in view of the fact that the factor analytic results tended to suggest that the student has a clearly defined value system concerning what the school should do for him - a value system which is likely to have been constantly reinforced and sanctioned in the course of the socialisation process.

Of further interest, however, is the fact that Conflict over Future-oriented School Values (the second general factor) makes a greater incremental contribution (1.23%) to variance of school alienation. As with the first factor, it is positively and significantly related to school alienation, though in this case the relationship is stronger (as is indicated in Tables 16 and 19). Thus any increase in the perceived conflict between school and student with regard to future-oriented values (such as independence, maturity, and so on) seems to be associated with increasing school alienation. The relationship between perceived conflict over these kinds of values and school alienation may be interpreted in terms of the student's conception of himself as a mature, responsible adult, and his acknowledgement of the school's responsibility in this

respect. If the student perceives a discrepancy between his expectations as to what the school should do or how it should function in order to promote the maturity of students and the way in which he sees the school putting these values into practice, then one might expect that this would engender a certain sense of dissatisfaction with school life. This interpretation finds some support in the work of Bellaby, who, in his study of deviance among thirteen to fourteen year old students, commented that '... whether the student sees his schooling as relevant to the status he can realistically expect to achieve as an adult is critical to his attitudes and conduct ...' (1974, p.172). The stronger relationship between school alienation and conflict over future-oriented values may reflect the fact that there is more conflict over future-oriented than present-oriented values (as is indicated by the means of these factors in Table 18; also, the smaller standard deviation for that factor suggests that there tends to be more agreement among students with regard to future-oriented values than is the case for present-oriented values). And secondly, the stronger relationship may be interpreted in terms of the importance that the student attaches to his conception of his future status (not merely with regard to occupational status, but also with respect to his status as an adult). Thirdly, this relationship may perhaps reflect the greater 'visibility' of this perceived conflict - for example, the student may interpret rule enforcement, lack of control over decision-making, and so forth, as potentially undermining such future-oriented values as maturity and the right to exercise choice.

Although the relationships between the two conflict of values factors and school alienation were significant at the p(0.01) level, nevertheless it had been anticipated that these factors would make a greater contribution to the variance of school alienation than they actually did. It seems that there may be several reasons for this, the

most obvious of which is that the contributions are accurate, even if they are lower than was expected, and that the association between these factors and school alienation is not as 'strong' as was anticipated. However two other possibilities are worth noting: firstly, there may be a possible interaction occurring among the variables - as is suggested by the initial 'abnormal' distribution of the conflict of values scores, and also by the fact that when these two factors were entered alone as the second group in the regression, their incremental contribution to variance received a substantial boost (to approximately 5% for the first factor and 11% for the second). Secondly, one could argue that it is very difficult to add much more to variance after 30% or so of the variance has already been explained. It may be that the rest of the variance is explained by a multitude of variables which may make small but significant contributions to the variance of school alienation - for example, status as a first-born, or only, child (Gould, 1969); lack of family harmony (Paulson *et al.*, 1972), and so on. Nevertheless the main point is that this study revealed that conflict over present, and future, oriented school values does make a significant contribution to explaining school alienation. Thus another aspect of perceived school structure - in the form of perceived 'person-social structure discrepancies' (Wegner, 1975, p.185) - has been identified and shown to be significantly related to school alienation.

The final regression result to be considered is that concerning achievement motivation. This variable made an incremental contribution of 0.001% to the variance of school alienation and this, as well as its individual relationship to school alienation, failed to reach significance. Thus it would seem that achievement motivation is not related to school alienation. However other considerations have a bearing on this apparent lack of relationship, and need to be borne in mind. Given that it is unlikely that students fail to differ with regard to achievement motivation,

it seems that one - or both - of the following possibilities may account for the achievement motivation result. Firstly, it has been noted that the measure only tapped an aspect of achievement motivation and the 'inadequacy' of the measure in this respect may account for the non-significant relationship. Secondly, mention has been made of other 'attitudes' which are closely intertwined with the achievement motive - for example, the desire to do well, and level of aspiration (see McClelland *et al.*, 1955, pp.408-9). Therefore it is possible that the control variables of student's occupational aspiration and expectation may have abstracted some of the variance that accrued to achievement motivation. This possibility is supported by the tolerance level of the variable, which suggested that there was some overlap between achievement motivation and the other variables in the regression equation.

This, then, concludes the discussion and interpretation of the results that emerged from this research. The findings and interpretations will now be summarised in terms of general conclusions that may be drawn from the study.

III. SUMMARY OF CONCLUSIONS

On the basis of the data analysis, the following <u>firm</u> conclusions can be made:

(1) School alienation is comprised of five dimensions - Self-estrangement, Meaninglessness, Misfeasance, Powerlessness, and Futility of Extra-curricular Activities.

(2) These five dimensions may be subsumed under a single, integrating factor identifiable as School Alienation. Hence school alienation may be regarded as a unitary syndrome.

(3) The perceived bureaucratic structure of the school is comprised of six dimensions - Hierarchy of Authority, Rules and Behavioural

Expectations, Subject Matter Specialisation, Centralisation of Control over Decision-making, and Technical Competence.

(4) At the second level of abstraction, these six dimensions may be subsumed under the two integrating factors of perceived Bureaucratic Organisation and Development of Expertise.

(5) Perceived conflict of values between the student and the school is comprised of five factors - Personal Development, Vocational Preparation, Intellectual and Moral Disciplines, Maturity, and Certification.

(6) These five dimensions may be subsumed under two integrating second-order factors identifiable as Conflict over Present-oriented School Values and Conflict over Future-oriented School Values.

(7) The measure of achievement motivation that was used tapped only one aspect of that motive, and consequently the data was not suitable for factor analytic reduction.

(8) All the variables entered in the regression together explain 44.53% of the variance of school alienation. This is significant beyond the p(0.01) level. Of this, 16.08% was contributed by the control variables, and 28.45% by the experimental variables.

(9) With the exception of achievement motivation, the experimental variables made incremental contributions to the variance of alienation which were significant at the p(0.01) level. This also applied to their individual relationships to school alienation.

(10) The two components of the perceived bureaucratic structure of the school together contributed 26.11% to the variance of school alienation. Bureaucratic Organisation made an incremental contribution of 20.63% and there is a strong, positive correlation between perceived bureaucratic organisation of the school and school alienation. Development of Expertise made an incremental contribution of 5.48%, and was negatively

related to school alienation. This suggests that student dissatisfaction with school tends to focus on the bureaucratic structure of the school, while the Development of Expertise aspect of school seems to be accepted by students.

(11) The two second-order conflict of values factors together contributed 2.34% to the variance of school alienation. Conflict over Present-oriented School Values made an incremental contribution to variance of 1.11%, and is positively related to school alienation. Therefore perceived conflict between school and student over the nature of immediate school experience tends to be associated with students' alienation from school. Conflict over Future-oriented School Values made an incremental contribution of 1.23% and was more strongly related to school alienation. This indicates that perceived conflict between school and student over those values relating to the future status of the student is associated with school alienation. The stronger nature of this relationship may be interpreted in terms of the importance that the student attaches to future status, and to the fact that there is more perceived conflict over future-oriented school values than over present-oriented ones.

(12) Achievement motivation made a non-significant incremental contribution to variance of 0.001%, and is not significantly related to school alienation. This result may in part be due to the inadequacy of the measuring instrument, and to possible overlap with other variables in the regression equation.

In addition to the above, the following more tentative conclusions may be made:

(i) Due to the lack of 'psychological' type validation, there is some uncertainty as to the actual meaning of points on the alienation scale.

(ii) School seems to have an 'intrinsic' meaning for students.

(iii) New Zealand schools seem to be highly bureaucratic in structure, and in this respect differ from Canadian schools.

(iv) Although emphasis was placed on the perceptions of students, the validation data tends to suggest that their perceptions are relatively accurate descriptions of reality.

(v) Teacher - student relationships seem to be relatively informal in nature.

(vi) Students seem to have a clearly delineated value system which discriminates between the immediate and future-oriented nature of school experience.

(vii) Students seem to accept examinations as an important part of school life, particularly in respect to their future. However there is some dissatisfaction with regard to the 'immediate' value of exams.

(viii) Given the nature of the measuring instrument used in this research, achievement motivation would have been more appropriately handled as a control variable rather than as an experimental one.

(ix) While school alienation may generalise to various aspects of school life, it seems to be context-specific and does not necessarily imply alienation from society.

(x) Bureaucratic Organisation may be viewed as the organisational aspect of bureaucratic structure, whereas Development of Expertise seems to be perceived as a functional aspect.

(xi) It is considered possible that a major part of the relationship between school alienation and perceived bureaucratic organisation is causal in nature.

(xii) The relationship between school alienation and perceived bureaucratic structure of the school is relatively specific and in this respect it would be misleading to view the 'bureaucracy-alienation' relationship in general terms.

(xiii) Finally, a theme which seemed to weave the various results of this research is that the student appears to have quite a clear, instrumental view of secondary school experience - one in which school is interpreted as an inevitable and necessary fact of life. Or, in the words of one of the students: '... It is a runway just before you take off into life - you learn how to handle the plane' (Form IV student's essay, December 1975).

IV. REDUCING SCHOOL ALIENATION

It would seem inappropriate to conclude without briefly considering the implications of this research with regard to the reduction of school alienation. Many studies have been conducted in this field, and have been primarily concerned with providing feasible, practical guidelines as to the ways in which the school could attempt to reduce school alienation. Many of these studies have concentrated on school and classroom policy (see, for instance, Henderson (1967), Mackey (1970), McElhinney *et al.* (1970), Williams (1970), Schiamberg (1970), DeVries *et al.* (1971), Pulvino and Mickelson (1972), Dillon (1975), West (1975), and Gillespie (1977)); while others have emphasised the role of the school counsellor and the various therapeutic techniques that might be successfully used for reducing alienation (see, for example, the work of Angel (1967), Warner and Hansen (1970), Ream (1971), Warner (1971), Raubolt (1975), Newman and Newman (1976), Hands (1976), and Sigal *et al.* (1976)).

Yet if, as this research suggests, there is a relationship between school alienation and school structure, then school alienation must be viewed not merely as a 'student problem' but also as a 'system' one. Therefore any attempt to reduce alienation must approach the issue from both of these perspectives. Given that the perceived bureaucratic

organisation of the school is strongly associated with school alienation, it seems possible that an attempt to move from a hierarchical structure to a more lateral type of school structure (where, for instance, rules are group-determined rather than imposed from above) may eliminate some of the alienating effects of school organisation.

With regard to students, it is suggested that school alienation may be reduced by helping students develop competence in dealing with a bureaucratic system. This would involve some decentralisation of control over decision-making, so that students would have increased opportunities to participate in making decisions which they see as important (in this respect, many researchers have called for increased student participation in decision-making - for example, Oppenheimer (1968), Blishen (1969), Eisner (1969), Moellenberg (1970), Bronfenbrenner (1973), Lipkind (1975), Dillon and Grout (1976), Kohler and Dollar (1976), and Mackey (1977)). The type of approach suggested, therefore, is one in which every attempt would be made to help students realise that they do have a legitimate role in making certain decisions in the high school - for example, students could assume certain responsibilities with regard to planning class activities, organising field trips, establishing an effective student council, deciding on sanctions, and so on. In this way students would have the opportunity to participate in the organisation and administration of the school and thus would presumably experience some sense of power, some responsibility, some autonomy. Essentially, then, this type of approach would be flexible, comprehensive, and action-oriented.

However, the causal nature of the relationship between school alienation and perceived bureaucratic structure is as yet ambiguous, and in addition half of the variance of school alienation has yet to be explained. So while it may be idealistic to anticipate the elimination of school alienation, it is apparent that it may at least be counteracted

and reduced. Any programme aimed at such an objective would be of undoubted benefit in furthering the potential of the student - and also of the school.

V. CRITICISMS OF THE STUDY

It seems that there are three main criticisms which could be made of this study - one of which concerns sampling, while the other two relate to the measuring instruments.

(1) It could be argued that the representativeness of the sample of students is somewhat reduced by the failure to include special classes and work experience classes in the sample - in this respect, the sample is not representative of all levels of ability. Although students in these classes represent a small minority of fourth form students, they are nevertheless part of the student population, and the failure to develop a measure which was within their capabilities may indicate a weakness in the research.

(2) Secondly, the researcher could perhaps have been more rigorous in dropping 'troublesome' items from the conflict of values scale. In addition the number of items in certain areas could have been supplemented - for example, those concerned with exams. And further investigation needs to be made with regard to the possibility that equivalent difference scores may represent different degrees of conflict.

(3) The third weakness concerns the achievement motivation measure. It is suggested that perhaps the measure should have been analysed even more carefully, with a view to re-designing the scale in such a way as to retain its advantages (such as self-administration, and the need for only one testing period) and remove its weaknesses (for example, by making it a more comprehensive measure through including other aspects of the achievement motive).

VI. SUGGESTIONS FOR FUTURE RESEARCH

Given that 44.5% of the total variance of school alienation has been explained, it is obvious that a good deal of the variance is accounted for by variables other than those included in this research.

(1) Therefore future research could concentrate on identifying other 'contributive' factors which relate to school alienation - this might include, for instance, examining further student characteristics (such as type of course taken at school, personality variables, part-time employment, and school attendance patterns); school characteristics (such as type and location of school); and perhaps most importantly home characteristics (such as parents' perceptions of the functions of the school, and parental interest in student's school activities - as expressed, for instance, through talking about school, attending parent-teacher meetings, sports days, and so on).

(2) The problem of validation is crucial, and further research would do well to attempt to obtain some 'psychological' type validation for the alienation scale.

(3) A longitudinal approach would be of much benefit - for instance, in determining whether or not school alienation is a reflection of a developmental trend, a certain age level, or perhaps compulsory school attendance.

(4) Finally, a question which is of vital importance, and as yet remains relatively unexplored, is that of causality. The adoption of causal techniques in future studies would provide an even greater understanding of the ways in which certain factors relate to school alienation. For while the correlational model is a useful framework, a causal model is even more 'insightful' in that it can specify the exact nature of the relationship between school alienation and other

'contributing' variables. In addition such research could provide direct guidelines for educational planners and school administrators regarding ways in which the school may 'function efficiently' but without doing so at the expense of its clients. In this respect it would make an important contribution to clarification of the relationship between features of school structure and personal, subjective reactions.

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APPENDIX A

1. Anti-image covariance matrix

2. First-order Varimax rotated factor matrix, and communalities

3. Alienation items in re-sorted order

4. Oblique factor pattern

5. Items which were re-adjusted for poor readers

6. Key to re-sorted and questionnaire item numbers for the alienation scale

TABLE 20: Anti-image covariance matrix (only 7 of 38 columns shown)

	AL01	AL02	AL03	AL04	AL05	AL06	AL07
AL01	0.58013	-0.12700	-0.12735	-0.12047	-0.10171	0.00135	0.00128
AL02	-0.12700	0.62107	-0.06666	-0.04977	-0.11496	0.00464	-0.05550
AL03	-0.12735	-0.06666	0.58681	-0.03162	-0.16261	0.04161	0.00896
AL04	-0.12047	-0.04977	-0.03162	0.71401	-0.09120	0.00820	-0.02760
AL05	-0.10171	-0.11496	-0.16261	-0.09120	0.55084	-0.03286	0.00668
AL06	0.00135	0.00464	0.04161	0.00820	-0.03286	0.72702	-0.09053
AL07	0.00128	-0.05550	0.00896	-0.02760	0.00668	-0.09053	0.64553
AL08	-0.00071	0.01172	-0.07538	0.00324	0.05619	-0.02139	0.09900
AL09	0.01943	-0.02137	-0.04877	-0.04459	0.00911	-0.05204	-0.04905
AL10	-0.00745	0.00663	-0.00785	-0.01060	-0.06089	-0.04647	-0.00643
AL11	-0.01125	-0.02439	0.01262	0.01883	-0.01749	-0.02107	0.00184
AL12	0.01946	0.02964	-0.01134	-0.00667	0.03419	-0.04970	0.03346
AL13	-0.01276	-0.01919	-0.01703	-0.00385	-0.01389	-0.04303	-0.10245
AL14	-0.03960	-0.05022	-0.01525	-0.00090	0.00334	-0.00968	-0.02553
AL15	0.00147	0.01183	0.08676	-0.00558	-0.07564	-0.03051	-0.00640
AL16	0.03017	0.00969	-0.02026	-0.03009	0.02585	-0.06625	0.01909
AL17	-0.03146	-0.00145	-0.00334	0.02313	-0.01731	0.00683	0.03425
AL18	-0.03103	0.03056	0.00585	-0.01633	0.00195	-0.00726	-0.06241
AL19	0.01642	-0.03960	0.05704	-0.03773	0.02712	-0.02553	0.00706
AL20	0.00187	0.00319	-0.04771	-0.03046	0.01704	-0.01492	0.01866
AL21	-0.00622	-0.03564	-0.01365	0.04837	-0.02996	0.01835	-0.00642
AL22	0.02679	0.03647	-0.02300	0.00440	-0.01845	0.02525	-0.04241
AL23	-0.01555	-0.00495	-0.05283	0.00424	0.02827	-0.05930	0.00411
AL24	-0.04784	-0.01925	-0.01651	-0.03449	0.00847	0.01325	-0.01621
AL25	-0.00931	0.02848	-0.02727	-0.03080	0.00200	-0.04740	-0.03030
AL26	0.00174	-0.00492	0.04337	0.02571	-0.04874	0.02564	0.04914
AL27	-0.03420	-0.01127	-0.02695	-0.02683	0.03972	-0.00257	-0.00547
AL28	-0.00936	0.05191	-0.02592	-0.01456	0.01348	0.00396	-0.01627
AL29	0.02121	-0.02922	0.03058	0.03772	-0.00611	-0.07971	-0.68226
AL30	-0.00249	-0.00926	0.05881	-0.10322	0.00473	0.01583	0.07484
AL31	0.01845	0.00184	-0.03211	-0.00022	-0.02320	0.05372	-0.02858
AL32	0.01002	-0.05371	0.03518	0.02934	0.00428	0.01375	0.02621
AL33	-0.01652	-0.00470	0.02934	0.01929	-0.01399	-0.00021	0.02220
AL34	0.02056	-0.00594	-0.00157	-0.02000	0.01886	0.00762	0.02480
AL35	0.03206	0.03026	-0.02981	0.02420	-0.04686	0.01631	-0.06010
AL36	-0.00309	-0.05780	-0.00649	0.03674	-0.01053	-0.03205	0.00153
AL37	-0.00145	0.00783	-0.03782	-0.06201	0.00238	-0.02370	0.01667
AL38	-0.05417	-0.01391	-0.01420	0.04920	-0.02304	-0.02455	0.00119

Note: Diagonals are underlined.

TABLE 21: First-order image analysis of alienation items: Varimax rotated factor matrix

RE-SORTED ITEM ITEM NO.	SUBTEST	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	COMMUNALIT
AL01		0.14702	0.07573	0.58330 *	0.11424	0.07401	0.00836	-0.03096	0.39011
AL02	Power-	0.20146	0.11102	0.51557 *	0.09867	0.10824	0.01668	-0.04085	0.34984
AL03	lessness	0.13477	0.08033	0.55367 *	0.09075	0.12246	0.00696	0.03341	0.36014
AL04		0.14079	0.13868	0.42381 *	0.10097	0.07008	0.06093	0.03947	0.25173
AL05		0.12521	0.16154	0.57379 *	0.12070	0.07320	0.06080	0.01683	0.39966
AL06		0.14563	0.27048 .	0.08950	0.18111	0.27433 .	0.15764	0.05402	0.24988
AL07		0.19875	0.26336 .	0.16101	0.21340	0.28534 .	0.15510	0.13653	0.31788
AL08	Meaning-	0.29874 .	0.13647	0.11653	0.09389	0.36381 *	0.00499	0.01484	0.29156
AL09	lessness	0.19486	0.26764 .	0.18554	0.18973	0.38414 *	0.06638	0.00331	0.37799
AL10		0.23197	0.26123 .	0.21934	0.14901	0.32008 *	0.15564	0.06796	0.33585
AL11		0.32982 *	0.14882	0.16644	0.19243	0.37204 *	0.04478	-0.15647	0.36433
AL12		0.34256 *	0.06876	0.07151	0.15763	0.41546 *	0.02371	-0.11200	0.34975
AL13		0.16072	0.29265 .	0.12401	0.16553	0.29764 .	0.14763	0.20830	0.31041
AL14		0.24868	0.03862	0.18274	0.05287	0.31106 *	-0.06221	0.06398	0.21393
AL15		0.21588	0.50390 *	0.10228	0.09062	0.11420	0.06842	0.01111	0.34799
AL16		0.15123	0.34516 *	0.02147	0.08901	0.03581	0.03213	-0.02440	0.18083
AL17	Misfeasance	0.30249 *	0.27152 .	0.09357	0.06556	0.12293	-0.08828	0.00167	0.23492
AL18		0.09854	0.56516 *	0.09542	0.10038	0.02847	0.08634	-0.00039	0.36385
AL19		0.14753	0.53516 *	0.08139	0.08200	0.12162	-0.01499	0.02888	0.34721
AL20		0.15360	0.52519 *	0.11237	0.06155	0.09268	-0.01911	-0.01660	0.32599
AL21		0.14365	0.55613 *	0.14338	0.10300	0.06311	0.02560	-0.06171	0.37823
AL22		0.07371	0.51285 *	0.07595	0.06515	0.06969	0.04074	0.06863	0.30701
AL23		0.01862	0.14181	0.12012	0.41324 *	0.10027	0.04412	0.05290	0.22743
AL24	Futility	0.19311	0.01767	0.21049	0.34748 *	0.19221	-0.01652	-0.15237	0.26869
AL25		0.15915	0.17872	0.13699	0.44060 *	0.08259	0.11094	0.01813	0.29385
AL26		0.10655	0.10302	0.09439	0.51465 *	0.07489	-0.02564	-0.00874	0.30808
AL27		0.62136 *	0.23987	0.20042	0.09835	0.17462	0.04801	-0.00759	0.53212
AL28		0.53023 *	0.13212	0.10491	0.06231	0.12230	0.01826	0.13320	0.35155
AL29		0.37746 *	0.20542	0.13594	0.18348	0.19190	0.31256 *	0.04377	0.37497
AL30	Self-	0.35933 *	0.04832	0.10290	0.10171	0.02791	-0.01850	-0.01153	0.17762
AL31	Estrange-	0.50040 *	0.27057 .	0.19938	0.13946	0.11862	0.21217	0.06424	0.47835
AL32		0.56856 *	0.16576	0.11268	0.08245	0.14444	0.01335	-0.06113	0.41401
AL33	ment	0.64748 *	0.20252	0.15213	0.09843	0.23054	0.09324	-0.06441	0.56774
AL34		0.60536 *	0.30620 *	0.15129	0.12633	0.18469	0.21446	0.01672	0.59401
AL35		0.50792 *	0.08994	0.11855	0.07441	0.19312	0.03714	0.01694	0.35229
AL36		0.56066 *	0.15795	0.16546	0.06204	0.08657	-0.05134	-0.00436	0.39723
AL37		0.44778 *	0.26077 .	0.23519	0.06089	0.07398	0.20645	0.01147	0.41848
AL38		0.39116 *	0.25294 .	0.23212	0.17855	0.15797	0.28760 .	-0.06325	0.41599

Note: Table shows first 7 of 19 factors with eigenvalues greater than one.
'*' indicates significant; '.' indicates tending towards significance.

TABLE 22: Alienation factor pattern after oblique rotation by direct oblimin; Delta = 0.27

RE-SORTED ITEM NO.	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6
AL01	-0.11126	-0.10235	0.94360 *	-0.04178	0.11085	0.09366
AL02	-0.02434	-0.04365	0.74333 *	-0.06965	0.02060	0.09303
AL03	-0.10785	-0.12114	0.82854 *	-0.09862	-0.03151	0.01864
AL04	0.03159	-0.01185	0.58211 *	-0.02725	-0.08858	0.05272
AL05	-0.08563	-0.00940	0.87397 *	-0.04557	0.13447	0.03632
AL06	-0.04962	0.16107	0.10461	0.09138	0.41103 *	0.19163
AL07	0.00195	0.09266	0.01250	0.11241	0.39804 *	0.20140
AL08	0.02253	0.01425	0.05677	0.07639	0.61233 *	0.05039
AL09	-0.17516	0.12729	0.02770	0.03335	0.62340 *	0.11202
AL10	0.04861	0.04951	0.09170	0.03818	0.45582 *	0.23798
AL11	0.05065	-0.03378	0.01809	0.07901	0.56344 *	0.08419
AL12	0.07907	-0.14841	0.16710	0.04213	0.70080 *	0.07348
AL13	-0.02295	0.13362	0.05693	0.02038	0.45439 *	0.29908 .
AL14	-0.02967	-0.10991	0.13155	0.12618	0.54592 *	0.07046
AL15	-0.07858	-0.63950 *	0.08520	0.07360	0.08844	0.02466
AL16	0.07013	0.49354 *	0.12860	0.03939	0.08027	0.05345
AL17	0.11258	0.39610 *	0.04403	0.05882	0.05987	0.27599 .
AL18	-0.07342	0.61496 *	0.03109	0.00420	0.16487	0.01431
AL19	-0.14898	0.79434 *	0.06901	0.09204	0.07383	0.07734
AL20	-0.09803	0.75650 *	-0.00073	0.11089	0.00752	0.06134
AL21	-0.08820	0.78226 *	0.03993	0.02855	0.10454	0.08297
AL22	-0.08687	0.68502 *	0.04019	0.09516	0.02365	0.13098
AL23	-0.16097	0.00688	0.00613	0.57559 *	0.04636	0.10326
AL24	-0.02787	0.20433	0.13910	0.42981 *	0.20377	0.13039
AL25	-0.12791	0.03873	0.03519	0.62765 *	0.09550	0.10974
AL26	-0.10825	0.04417	0.11930	0.98422 *	0.11006	0.17116
AL27	0.75179 *	0.05823	0.00245	0.10042	0.02124	0.11771
AL28	0.72437 *	0.06002	0.08532	0.08605	0.00778	0.31023
AL29	0.59561 *	-0.12909	0.09336	0.10643	0.09928	0.30663 *
AL30	0.47845 *	0.07377	0.01061	0.07221	0.12368	0.14428
AL31	0.81232 *	0.01295	0.00601	0.00193	0.14936	0.20326
AL32	0.72097 *	0.00485	0.09835	0.06514	0.08422	0.11429
AL33	0.82240 *	0.05039	0.11085	0.09698	0.19988	0.05967
AL34	0.90788 *	0.02845	0.13745	0.05128	0.01435	0.15369
AL35	0.56603 *	0.12640	0.06553	0.06280	0.18016	0.07285
AL36	0.68903 *	0.06466	0.01509	0.09381	0.10276	0.26311 .
AL37	0.76501 *	0.00332	0.12787	0.11438	0.20509	0.22604
AL38	0.55065 *	0.02711	0.07242	0.07825	0.01293	0.19971
FACTOR DIMENSION	SELF-ESTRANGEMENT	MIS-FEASANCE	POWER-LESSNESS	FUTILITY OF EXTRA-CURRICULAR ACTIVITIES	MEANING-LESSNESS	UN-NAMED

Note: See previous table for communalities
'*' indicates significant; '.' indicates tending towards significance.

Items in the alienation scale which were re-adjusted for poor readers

Resorted Number		Questionnaire Item Number
AL06	I just don't see how finishing high school here will mean that I'll be able to get all the things I and my family will need.	A3
AL23	On the whole, I think that taking part in school sports is (or would be) a waste of my time	A4
AL17*	The best way for me to get ahead in this school is to behave properly with the staff.	A7 *
AL18	I will probably have to break school rules if I am to end up getting any school prizes.	A9
AL07	I just can't see how school will make me a better citizen.	A10
AL19	To do really well in this school, I would have to behave in ways which the teachers wouldn't like.	A11
AL20	To really get on in this school, I would have to do some things which the teachers wouldn't like.	A14
AL11*	The subjects they teach in this school are really useful to me.	A23 *
AL22	To get to the top in this school, I would have to get there any way I could - even if the teachers didn't like what I did.	A24
AL14 *	My schoolwork helps me understand what kind of world I'll be living in when I grow up.	A30 *
AL26*	I think it's really worth taking part in competitions when my school is competing against other schools.	A31 *

Note: Those items which are asterisked '*' are reverse-scored.

Key to re-sorted and questionnaire item numbers for the alienation scale

Re-sorted Number	Questionnaire Item Number
AL01	A5
AL02	A8
AL03	A17
AL04	A22
AL05	A25
AL06	A3
AL07	A10
* AL08	A12 *
AL09	A16
AL10	A18
* AL11	A23 *
* AL12	A27 *
AL13	A29
* AL14	A30 *
AL15	A2
AL16	A6
* AL17	A7 *
AL18	A9
AL19	A11
AL20	A14
AL21	A19
AL22	A24
AL23	A4
* AL24	A20 *
AL25	A28
* AL26	A31 *
* AL27	A13 *
* AL28	A15 *
AL29	A26
* AL30	A32 *
AL31	A33
* AL32	A34 *
* AL33	A35 *
AL34	A36
* AL35	A37 *
* AL36	A38 *
AL37	A39
AL38	A40

Note: * indicates items which are reverse-scored.

APPENDIX B

1. First-order Varimax rotated factor matrix, and communalities
2. Bureaucratization items in re-sorted order
3. Oblique factor pattern
4. Key to re-sorted and questionnaire item numbers for the bureaucratization scale

TABLE 23: First-order image analysis of bureaucratization items: Varimax rotated factor matrix

RE-SORTED ITEM ITEM NO.	SUBTEST	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	COMMUNALITY
BU01	Subject Matter Specialisation	0.11531	0.02517	0.58026 *	0.15578	0.05366	-0.08798	0.00125	0.38564
BU02		0.08673	0.06671	0.56089 *	0.17792	0.11441	-0.07129	-0.00059	0.39940
BU03	Hierarchy of Authority	0.10703	0.58639 *	0.02517	0.02441	0.08841	0.00616	-0.02257	0.36880
BU04		0.17080	0.61846 *	0.05247	0.12551	0.10006	-0.02553	0.00076	0.44926
BU05		0.00643	0.45942 *	0.06134	0.24729 .	0.33043 *	0.01234	0.05993	0.39306
BU06		0.04317	0.11911	0.04340	0.01069	0.26314 .	0.12005	-0.00272	0.11055
BU07		0.17800	0.58243 *	-0.01215	0.13647	0.25634 .	-0.02187	0.00301	0.46491
BU08		0.15635	0.56719 *	0.07969	0.14737	0.19911	-0.00432	0.06155	0.43040
BU09	Rules and Regulations	0.33429 *	0.18931	0.01702	0.00812	0.00862	0.00071	0.02270	0.16569
BU10		0.56207 *	0.07225	0.05161	0.00749	0.02777	0.05169	-0.00643	0.34068
BU11		0.21048	0.24631	0.01461	0.20855	0.33249 *	0.02956	0.01441	0.26422
BU12		0.55865 *	-0.00553	0.05438	-0.03289	0.02263	0.06388	-0.00981	0.32766
BU13		0.40051 *	-0.01326	0.00292	0.05509	0.19331	0.05384	-0.03649	0.21583
BU15		0.46985 *	0.13431	0.01471	-0.01421	0.16227	0.05559	0.01862	0.27600
BU17		0.46128 *	0.11525	0.04665	0.03092	0.09237	0.08974	0.04329	0.29460
BU18		0.56576 *	0.11026	0.06167	0.03866	0.09668	0.05056	-0.04235	0.37186
BU19	Technical Competence	0.06721	0.04870	-0.08983	-0.16080	0.06029	0.22393	0.00369	0.09711
BU20		0.03995	-0.13516	-0.12982	-0.17562	-0.07797	0.21509	-0.03555	0.12493
BU21		0.09374	-0.03329	-0.09721	0.03848	0.07561	0.21648	0.00628	0.07574
BU22		0.09428	0.03223	0.12426	-0.00243	0.20238	0.23427	0.03861	0.12469
BU23	Impersonality	0.55780 *	0.10457	0.02769	0.00707	0.05358	0.04108	0.04221	0.33217
BU24		0.03768	0.14915	0.17467	0.50177 *	0.09628	-0.03059	0.02128	0.31765
BU25		0.00919	0.19369	0.13639	0.51408 *	0.11913	-0.04192	0.01786	0.33767
BU26	Centralization of Control	0.37463 *	0.27718 .	0.01200	-0.00551	0.21976	0.17138	0.19523	0.33602
BU27		0.29161 .	0.14612	0.08736	-0.00659	0.27317 .	0.07917	0.04160	0.21514
BU28		0.14046	0.23188	0.08494	0.05996	0.39821 *	0.03072	0.00705	0.25226
BU29		0.12937	0.18915	0.04623	0.18614	0.41097 *	0.03500	0.01702	0.26777
BU30		0.31269 *	0.24314	0.00270	0.13349	0.30610 *	0.10540	0.20257	0.32488

Note: Table shows first 7 of 14 factors with eigenvalues greater than one. Items 14 and 16 omitted.
'*' indicates significant; '.' indicates tending towards significance.

BUREAUCRATIZATION ITEMS: in re-sorted order. (Items 1, 2, 14, 24 are reverse-scored)

BU01 If I wanted to, I could choose from a large number of different subjects in this school.

BU02 In this school I can choose among a wide variety of different subjects, rather than just concentrating on one small area.

BU03 I often get orders from "higher up".

BU04 Teachers and prefects often tell me what to do.

BU05 Officials in this school act like gods always ordering me about and telling me what to do.

BU06 Teachers here can't decide for themselves about many things at school because they all have certain things they've got to do.

BU07 I often get told what to do by someone higher up in the school system.

BU08 There are many people higher up in this school who can give me orders and they often do.

BU09 I'm supposed to obey school rules about having to come to school regularly.

BU10 I'm supposed to follow a school rule about not leaving the school grounds during school hours.

BU11 This school has rules which cover almost everything I do.

BU12 I am supposed to obey school rules about not smoking while I am in the school grounds.

BU13 I'm meant to obey school rules which state that I may not leave the classroom - even to go to the toilet - unless I have permission to to do so.

BU14 In most classes I am allowed to sit where I want to in the classroom.

BU15 I'm supposed to obey a lot of rules about my personal behaviour in and around school.

BU16 In most of my classes we have a lot of rules about how school work is to be set out.

BU17 I'm supposed to strictly obey all the school rules about arriving on time at school and at classes.

BU18 I'm supposed to obey school rules regarding my conduct at school.

BU19 I have got this far though school because of my ability.

BU20 Success in this school doesn't depend on whether the teachers like me or not, but on how well I do my work.

BU21 Supposing I wanted to stay on at school, then whether I could get into the fifth form or not would depend on how well I do my work.

BU22 My chances of doing well in this school depend almost entirely on my ability.

BU23 I am expected to show proper respect to the school authorities here.

BU24 I can talk to teachers easily here - just as if they were one of us.

BU25 I find it difficult to get on really friendly terms with the teachers here.

BU26 When it all boils down, the principal of this school has a lot of authority over me.

BU27 If something that I want to do is different from what the teachers want me to do, they have the final say about what will be done.

BU28 I can't do much without asking someone "higher up".

BU29 I can't make many decisions of my own about what I want to do because the school authorities must approve everything first.

BU30 In the end, school authorities have a lot of control over me.

TABLE 24: Bureaucratization factor pattern after oblique rotation by direct oblimin; Delta = 0.47

RE-SORTED ITEM NO.	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6
BU01	-0.12650	0.03953	0.89009 *	-0.13756	0.03645	-0.00672
BU02	-0.10080	-0.04347	0.87516 *	-0.03185	0.02458	0.02519
BU03	0.81014 *	-0.05986	-0.04285	-0.08219	0.08491	0.04947
BU04	0.84636 *	0.02125	-0.05545	-0.17362	-0.06987	0.01622
BU05	0.41256 *	-0.23061	-0.06038	0.36424 *	-0.19257	0.03055
BU06	0.05620	-0.10369	0.06373	0.27359 .	0.03052	0.22512
BU07	0.60979 *	0.03592	-0.19121	0.30037 *	0.00408	-0.12840
BU08	0.60363 *	0.00034	-0.04045	0.15936	-0.02524	-0.04813
BU09	0.19640	0.39247 *	-0.03041	-0.10403	0.05073	-0.05350
BU10	-0.02323	0.71292 *	0.00860	-0.19084	-0.00915	0.01364
BU11	0.07678	0.12706	-0.11549	0.58600 *	-0.16322	-0.02817
BU12	-0.11955	0.73640 *	0.03791	-0.16776	0.04816	0.02217
BU13	-0.21807	0.48092 *	-0.06056	0.21113	-0.01808	-0.03382
BU15	0.02173	0.53585 *	-0.03782	0.11037	0.10138	-0.00323
BU17	-0.01300	0.56094 *	-0.01202	0.03019	0.02807	0.00498
BU18	-0.05921	0.71212 *	-0.01868	0.02280	0.04330	-0.09489
BU19	0.13247	-0.01450	-0.04467	-0.04108	0.11687	0.39808 *
BU20	-0.06390	0.05684	-0.08157	-0.18077	0.06056	0.34543 *
BU21	-0.08440	0.06469	-0.14041	0.00636	-0.17229	0.26883 *
BU22	-0.03286	-0.07602	0.23444	0.08985	-0.01307	0.49178 *
BU23	0.00007	0.71975 *	-0.04411	-0.09021	0.03550	-0.05466
BU24	-0.02916	-0.03849	0.02842	-0.10341	-0.75329 *	-0.02471
BU25	0.02067	-0.12402	-0.06215	-0.10573	-0.88717 *	-0.01150
BU26	0.25751 .	0.30409 *	-0.02803	0.08895	0.05468	0.25076 .
BU27	0.02653	0.24880	0.08667	0.31373 *	0.16121	0.05856
BU28	0.08059	0.00390	0.06134	0.57239 *	0.14249	-0.00445
BU29	-0.05665	0.01084	-0.05874	0.63814 *	-0.07003	-0.05546
BU30	0.10232	0.24556	-0.10179	0.32737 *	-0.07638	0.07728
FACTOR DIMENSION	HIERARCHY OF AUTHORITY	RULES AND BEHAVIOURAL EXPECTATIONS	SUBJECT MATTER SPECIALISATION	CENTRALISATION OF CONTROL OVER DECISION-MAKING	IMPERSON-ALITY	TECHNICAL COMPETENCE

Note: See previous table for communalities. Items 14 and 16 dropped.
'*' indicates significant; '.' indicates tending towards significance.

Key to re-sorted and questionnaire item numbers for the bureaucratization scale

Re-sorted Number	Questionnaire Item Number
* BU01	B10 *
* BU02	B12 *
BU03	B2
BU04	B3
BU05	B7
BU06	B19
BU07	B21
BU08	B32
BU09	B4
BU10	B8
BU11	B13
BU12	B16
BU13	B20
* BU14	B24 *
BU15	B25
BU16	B26
BU17	B29
BU18	B30
BU19	B5
BU20	B14
BU21	B23
BU22	B31
BU23	B9
* BU24	B11 *
BU25	B27
BU26	B6
BU27	B17
BU28	B18
BU29	B22
BU30	B28

Note: * indicates items which are reverse-scored.

APPENDIX C

1. First-order Varimax rotated factor matrix, and communalities

2. Conflict of Values items in re-sorted order

3. Oblique factor pattern

4. Key to re-sorted and questionnaire item numbers for the conflict of values scale

TABLE 25: First-order image analysis of conflict of values items: Varimax rotated factor matrix

RE-SORTED ITEM NO.	ITEM SUBTEST	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	COMMUNALITY
CV01		0.21219	0.41329*	0.09919	0.12219	0.12888	-0.04260	0.26672
CV02		0.24823	0.44921*	0.13750	0.12980	0.15127	0.00811	0.33456
CV03		0.14158	0.16572	0.13517	0.09713	0.32745*	0.01358	0.18302
CV04		0.18381	0.21619	0.22639	0.17892	0.31120*	0.02917	0.27050
CV05	Vocational	0.19324	0.48973*	0.20130	0.05953	0.15794	0.03380	0.35187
CV06		0.23303	0.41385*	0.18554	0.18774	0.05860	0.01653	0.32953
CV07		0.16406	0.38139*	0.24235	0.12231	0.04505	-0.09036	0.27041
CV08		0.07116	0.04405	0.07368	0.32826*	0.08316	0.02163	0.12841
CV10		0.27970.	0.19995	0.17042	0.11312	0.12139	0.03712	0.20784
CV11		0.38661*	0.26027.	0.20826	0.15120	0.25583.	-0.01422	0.36472
CV13		0.42689*	0.30017*	0.22298	0.36966*	0.03608	-0.05477	0.47407
CV14	Intellectual	0.49949*	0.25558.	0.35811*	0.17734	0.05522	0.03321	0.49263
CV15		0.21716	0.16704	0.40675*	0.17148	0.07295	0.01219	0.29125
CV16		0.14862	0.22924	0.42691*	0.20487	0.12262	0.03470	0.32232
CV17		0.30119*	0.15347	0.37225*	0.13856	0.02039	0.02165	0.28817
CV18		0.44604*	0.25332.	0.08541	0.16181	0.12661	0.04948	0.33012
CV19		0.37796*	0.19985	0.26567.	-0.02141	0.16650	-0.03546	0.28812
CV20		0.41596*	0.24060	0.28886.	0.03426	0.15198	0.05021	0.37551
CV21		0.20796	0.36106*	0.23318	0.02867	0.12975	0.12547	0.26472
CV22	Social	0.44665*	0.29101.	0.24151	0.15607	0.14245	0.19926	0.43556
CV23		0.41232*	0.16686	0.17478	0.28024.	0.03331	0.01340	0.32258
CV25		0.17796	0.19894	0.43361*	0.07189	0.16671	0.01895	0.29943
CV26		0.11417	0.10776	0.36015*	0.08973	0.10506	-0.00043	0.19482
CV27		0.47445*	0.19601	0.32237*	0.13120	0.12294	0.05270	0.41664
CV28		0.38026*	0.18240	0.15103	0.24729	0.08017	0.18865	0.30569
CV29		0.43925*	0.17036	0.15729	0.09401	0.18114	-0.02238	0.29740
CV30		0.48062*	0.27581.	0.15762	0.16187	0.16866	-0.04995	0.39660
CV31		0.43596*	0.30483*	0.20088	0.15394	0.19252	0.03345	0.40409
CV32	Personal	0.29260.	0.36125*	0.22111	0.12149	0.09664	0.04204	0.32034
CV33		0.29357.	0.35430*	0.26437.	0.17285	0.10333	0.05674	0.36960
CV34		0.40359*	0.16964	0.14033	0.34740*	0.02070	-0.02824	0.35129
CV35		0.25191.	0.33381*	0.27925.	0.37460*	0.08064	-0.03329	0.40780
CV36		0.42587*	0.25053.	0.29604.	0.20428	0.08142	-0.00817	0.40780

Note: Table shows first 6 of 16 factors with eigenvalues greater than one. Items 9, 12 and 24 dropped.
'*' indicates significant; '.' indicates tending towards significance.

CONFLICT OF VALUES ITEMS: in re-sorted order.

CV01 Schools should exist to get students ready for a job.
CV02 One of the main purposes of school should be to help students choose jobs that they will like.
CV03 Schools should exist to help students get qualifications (e.g. School Certificate).
CV04 One thing that schools must do is help students pass exams.
CV05 The purpose of schools should be to help prepare students for jobs.
CV06 It's important for schools to teach subjects which could be useful to students in their jobs later on.
CV07 Something that schools must do is tell students about the different sorts of jobs they could do when they leave school.
CV08 Schools should abolish all exams.
CV09 It's the job of the school to show students how to handle problems.
CV10 One thing that schools should do is teach students how to study efficiently.
CV11 One thing that schools should do is try to make students like learning.
CV12 It's the job of the school to show students how to decide which information is important and which isn't.
CV13 One thing that schools ought to do is make schoolwork interesting.
CV14 Something that schools must do is teach students how to tackle real life problems.
CV15 The purpose of school should be to make students curious about lots of different subjects.
CV16 It's the job of the school to teach students a lot about the different subjects they take.
CV17 Something that schools should do is help students develop better memories.
CV18 It's important for schools to give students a chance to meet people.
CV19 It's important for schools to encourage students to care about other people.
CV20 One thing that schools ought to do is teach students how important it is to help one another.
CV21 One thing that schools should do is teach students how to work in a group.
CV22 It's important for schools to teach students how to mix with people.
CV23 It's important for schools to encourage students to stick up for their friends.
CV24 Something that schools ought to do is make students a lot more interested in current affairs.
CV25 One of the main purposes of school should be to teach students the difference between right and wrong.
CV26 It's the job of the school to teach students to respect law and order.
CV27 Something that schools must do is teach students how to communicate with one another.
CV28 One thing that schools should do is make students feel at ease with members of the opposite sex.
CV29 One thing that schools must do is help the student understand himself as a person.
CV30 Something that schools must do is encourage students to have confidence in themselves.
CV31 Something that schools must do is help students cope with life.
CV32 One thing that schools ought to do is challenge students to do things they haven't tried before.
CV33 One thing that schools ought to do is give students new interests.
CV34 One thing that schools must do is treat students like young adults, not like little children.
CV35 One thing that schools should do is help students find out what they're good at.
CV36 It's important for schools to encourage students to become more independent.

TABLE 26: Conflict of Values factor pattern after oblique rotation by direct oblimin; Delta = 0.43

RE-SORTED ITEM NO.	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
CV01	-0.00004	0.68398*	-0.19350	0.01492	0.00428
CV02	-0.04833	0.78696*	-0.13495	-0.02862	-0.00915
CV03	0.06717	-0.03492	0.09965	0.15791	0.49532*
CV04	0.05876	-0.00620	0.21379	0.24796	0.44915*
CV05	-0.25521.	0.93633*	-0.02642	-0.13323	-0.02297
CV06	0.01888	0.70386*	-0.13711	0.07626	-0.12835
CV07	-0.13298	0.64053*	0.06614	-0.00384	-0.13806
CV08	0.01609	-0.09424	0.13198	0.47039*	0.15396
CV10	0.37961*	0.06094	-0.01379	0.00961	0.03250
CV11	0.52423*	0.00547	-0.03673	0.05392	0.22469
CV13	0.49901*	0.20856	0.01718	0.23079	-0.21721
CV14	0.69105*	-0.03804	0.20546	-0.11791	-0.22569
CV15	0.02737	-0.02964	0.60690*	0.03256	-0.06945
CV16	-0.21091	0.12603	0.65723*	0.13737	0.02860
CV17	0.29572.	-0.09862	0.47555*	-0.06514	-0.19274
CV18	0.76977*	0.07946	-0.34785*	0.00250	0.00661
CV19	0.54048*	-0.08264	0.13162	-0.25990.	0.03247
CV20	0.66275*	-0.04889	0.02495	-0.20066	0.00444
CV21	0.01112	0.49628*	0.05712	-0.13106	-0.01439
CV22	0.63923*	0.08701	-0.05242	-0.05604	-0.01925
CV23	0.66311*	-0.09537	-0.01446	0.14107	-0.13816
CV25	-0.10883	-0.01133	0.71450*	-0.07136	0.07511
CV26	-0.03691	-0.10141	0.52254*	0.04155	0.05689
CV27	0.72809*	-0.20335	0.18779	-0.11075	-0.06013
CV28	0.60539*	-0.04679	-0.07709	0.12991	-0.02518
CV29	0.75002*	-0.18154	-0.07479	-0.06114	0.10316
CV30	0.72646*	0.05050	-0.14348	-0.05241	0.01562
CV31	0.57927*	0.13176	-0.08369	-0.03394	0.05728
CV32	0.22268	0.44234*	-0.05210	-0.04212	-0.07117
CV33	0.19217	0.39204*	0.05518	0.02714	-0.05705
CV34	0.63428*	-0.06638	-0.02295	0.22812	-0.16276
CV35	-0.01871	0.39673*	0.24636	0.33971*	-0.06715
CV36	0.51514*	0.03609	0.17384	-0.01895	-0.13566
FACTOR DIMENSION	PERSONAL DEVELOPMENT	VOCATIONAL PREPARATION	INTELLECTUAL AND MORAL DISCIPLINES	MATURITY	CERTIFICATION

Note: See previous table for communalities. Items 9, 12 and 24 dropped.
'*' indicates significant; '.' indicates tending towards significance.

Key to re-sorted and questionnaire item numbers for the conflict of values scale

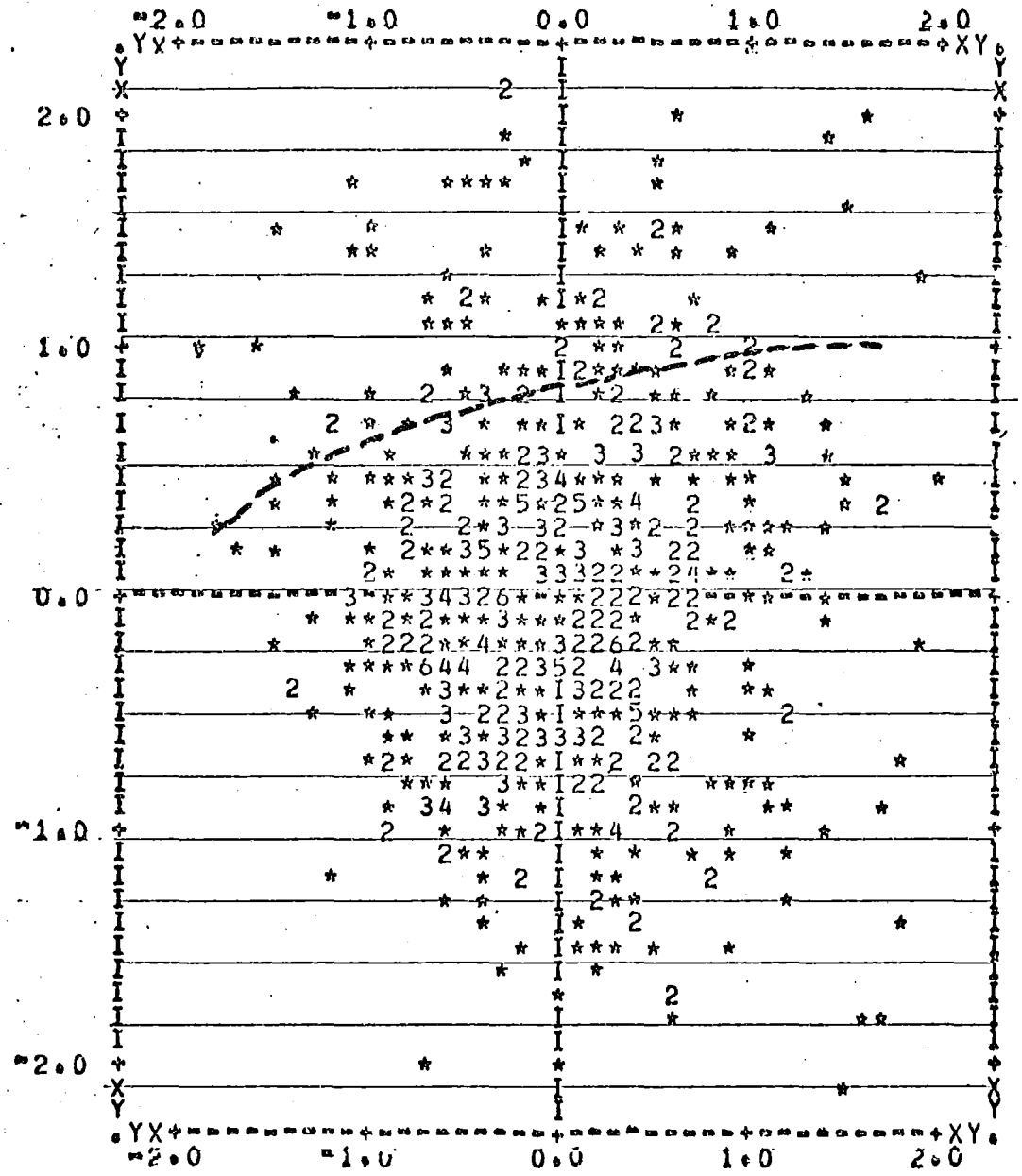
Re-sorted Number	Questionnaire Item Number
CV01	E4
CV02	E8
CV03	E12
CV04	E15
CV05	E19
CV06	E23
CV07	E24
CV08	E28
CV09	E2
CV10	E3
CV11	E11
CV12	E18
CV13	E27
CV14	E32
CV15	E33
CV16	E35
CV17	E38
CV18	E5
CV19	E13
CV20	E16
CV21	E20
CV22	E21
CV23	E25
CV24	E30
CV25	E34
CV26	E36
CV27	E37
CV28	E6
CV29	E7
CV30	E9
CV31	E14
CV32	E17
CV33	E22
CV34	E26
CV35	E29
CV36	E31

APPENDIX D

Plots of residuals: before and after square root transformation of the conflict of values scores

FIGURE 6

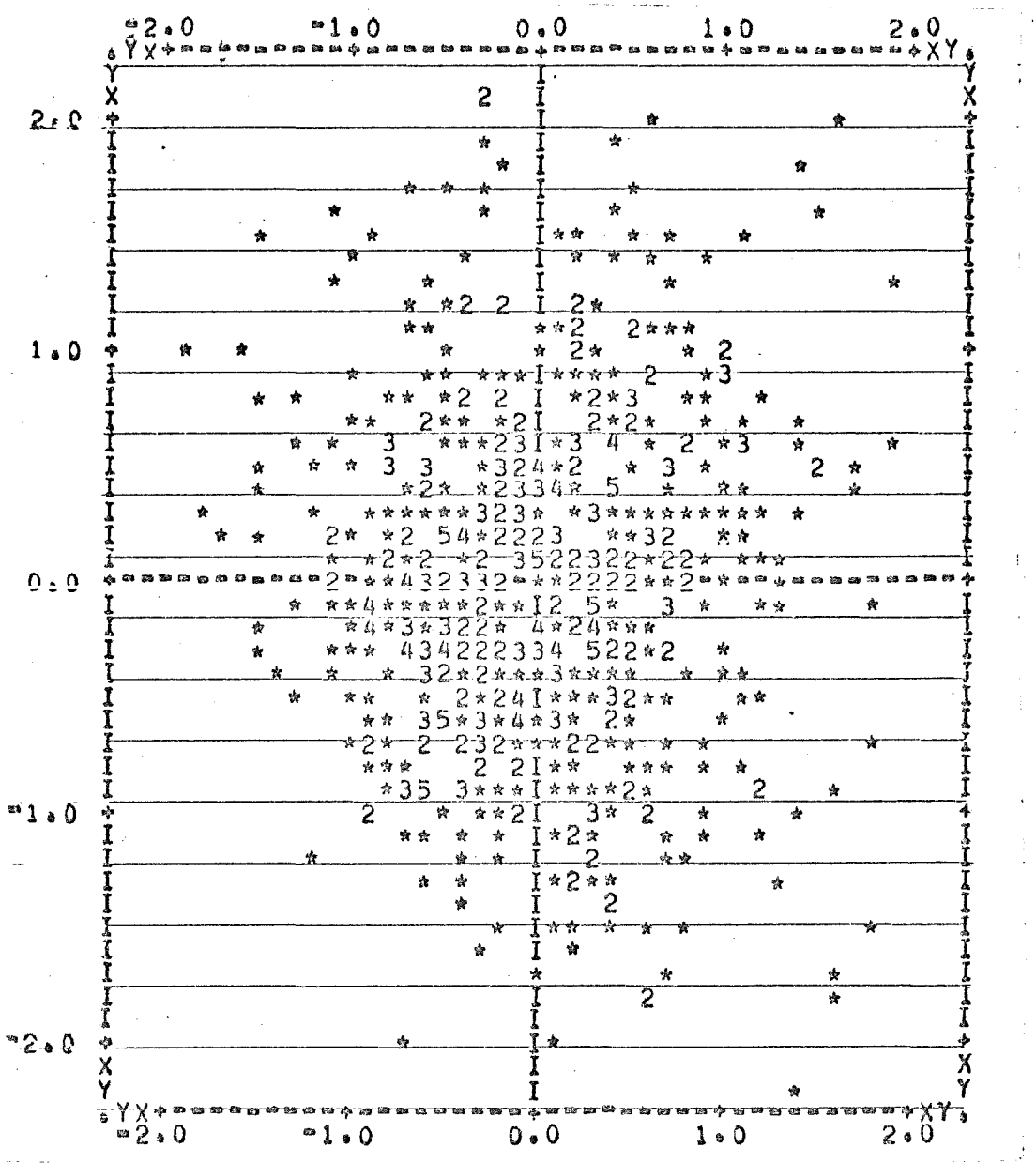
Plot of residuals: School alienation (horizontal) with all variables (vertical).



Note: Curvature in plot indicated.

FIGURE 7

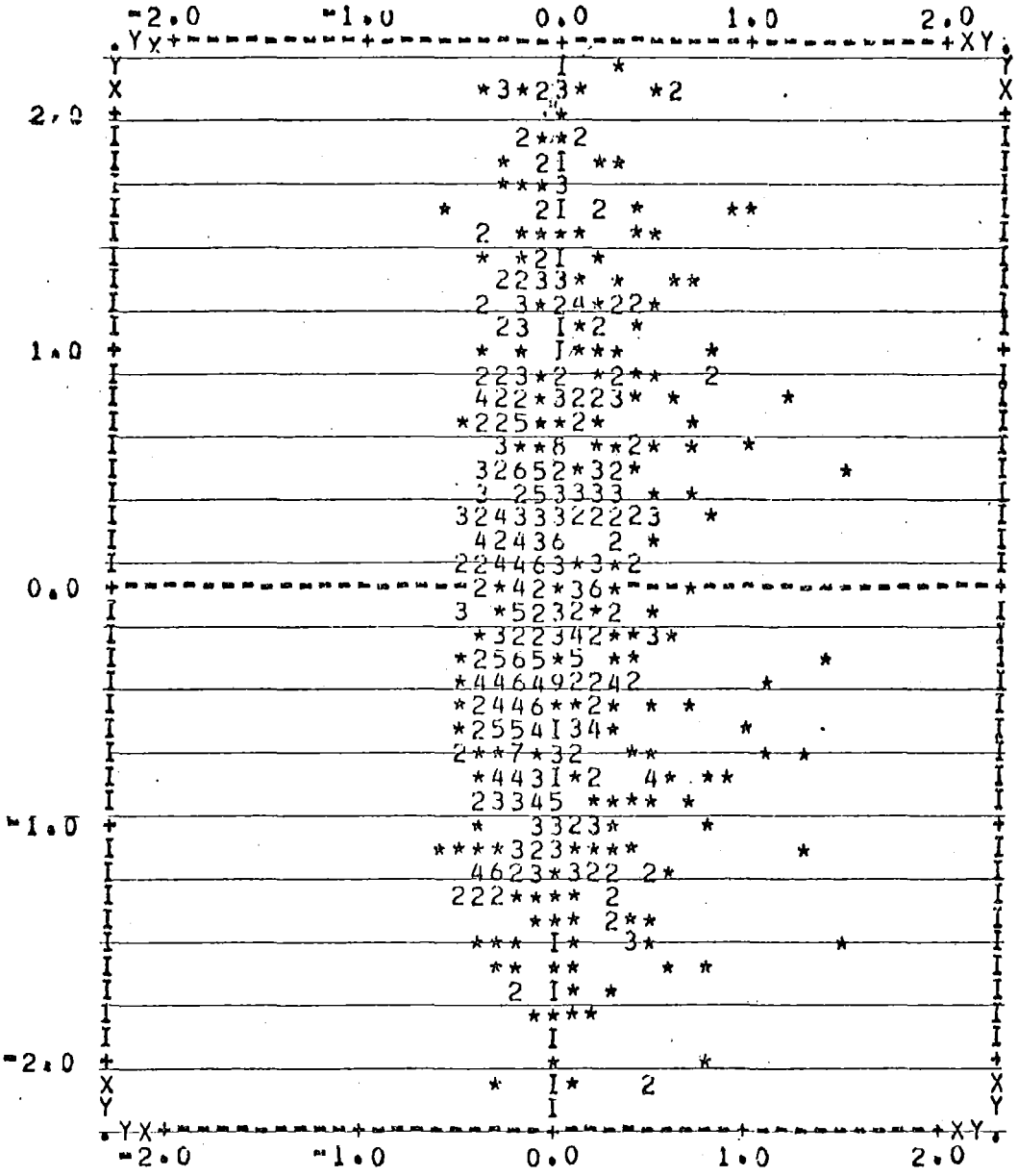
Plot of residuals: School alienation (horizontal) with all variables (vertical), subsequent to square root transformation of conflict of values scores.



Note: Considerable improvement in plot.

FIGURE 8

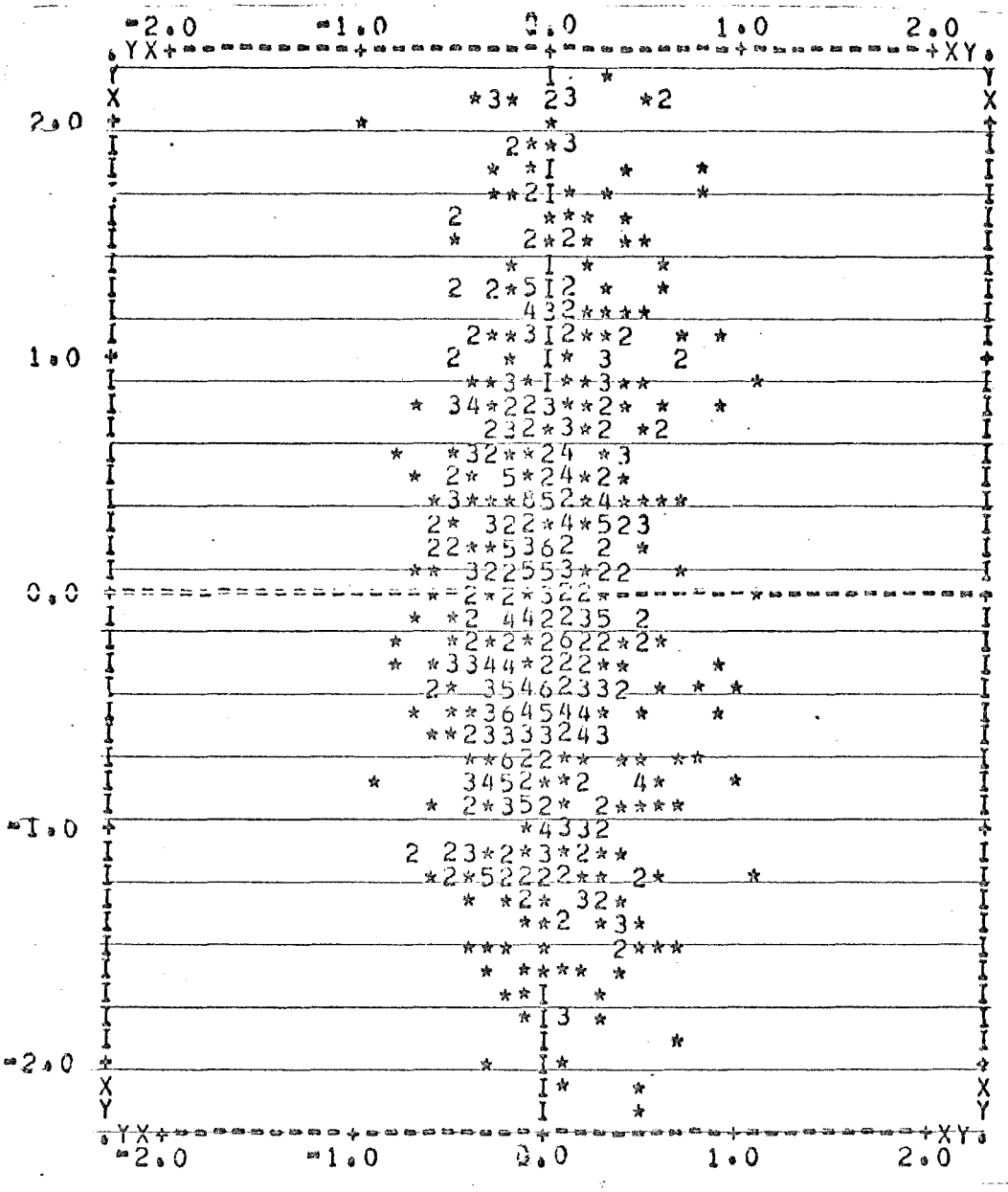
Plot of residuals: School alienation (horizontal) with Conflict over Present-oriented School Values (vertical).



Note: Plot indicates truncated spread.

FIGURE 9

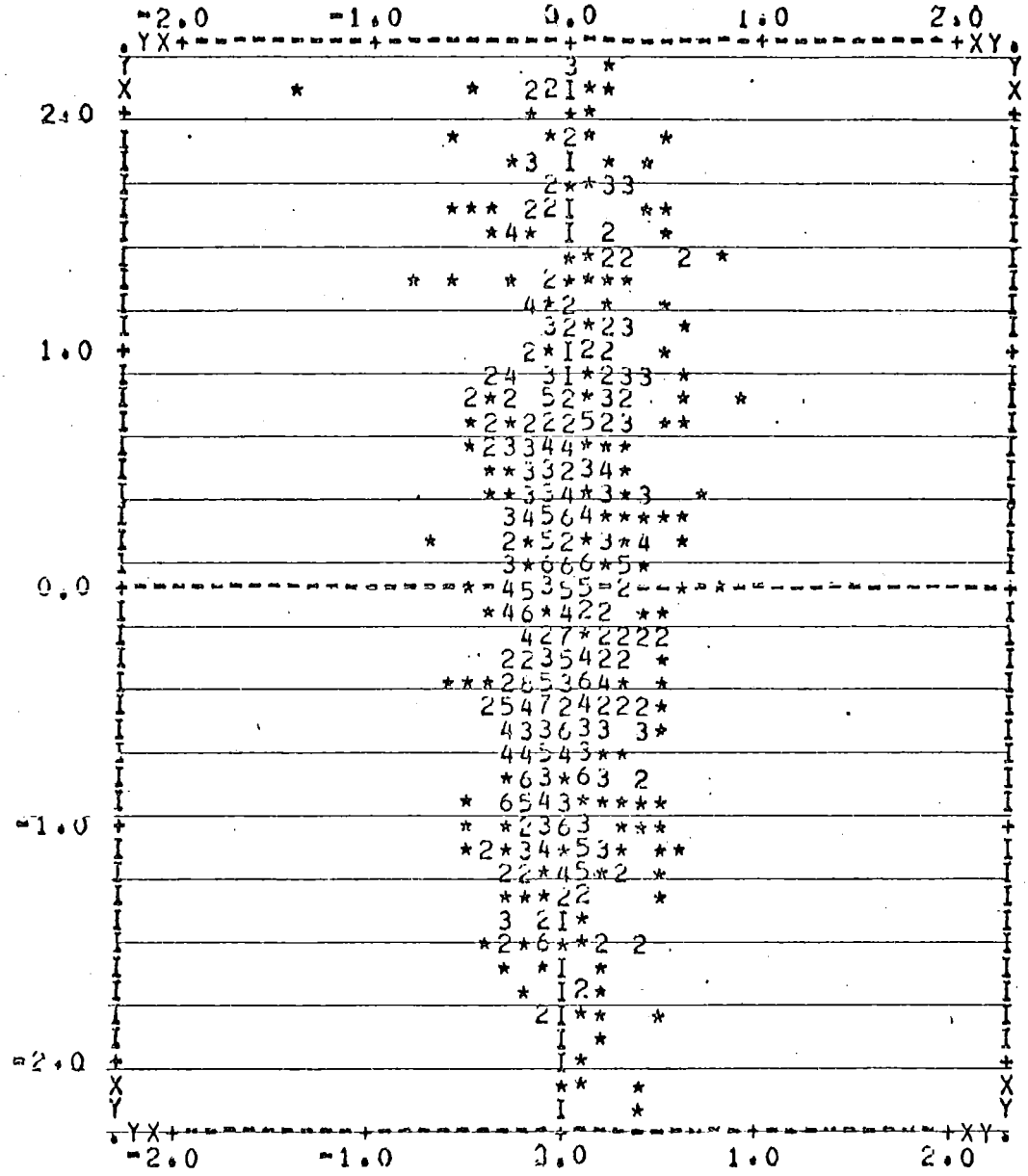
Plot of residuals: School alienation (horizontal) with Conflict over Present-oriented School Values (vertical), subsequent to square root transformation.



Note: Considerable improvement in plot.

FIGURE 10

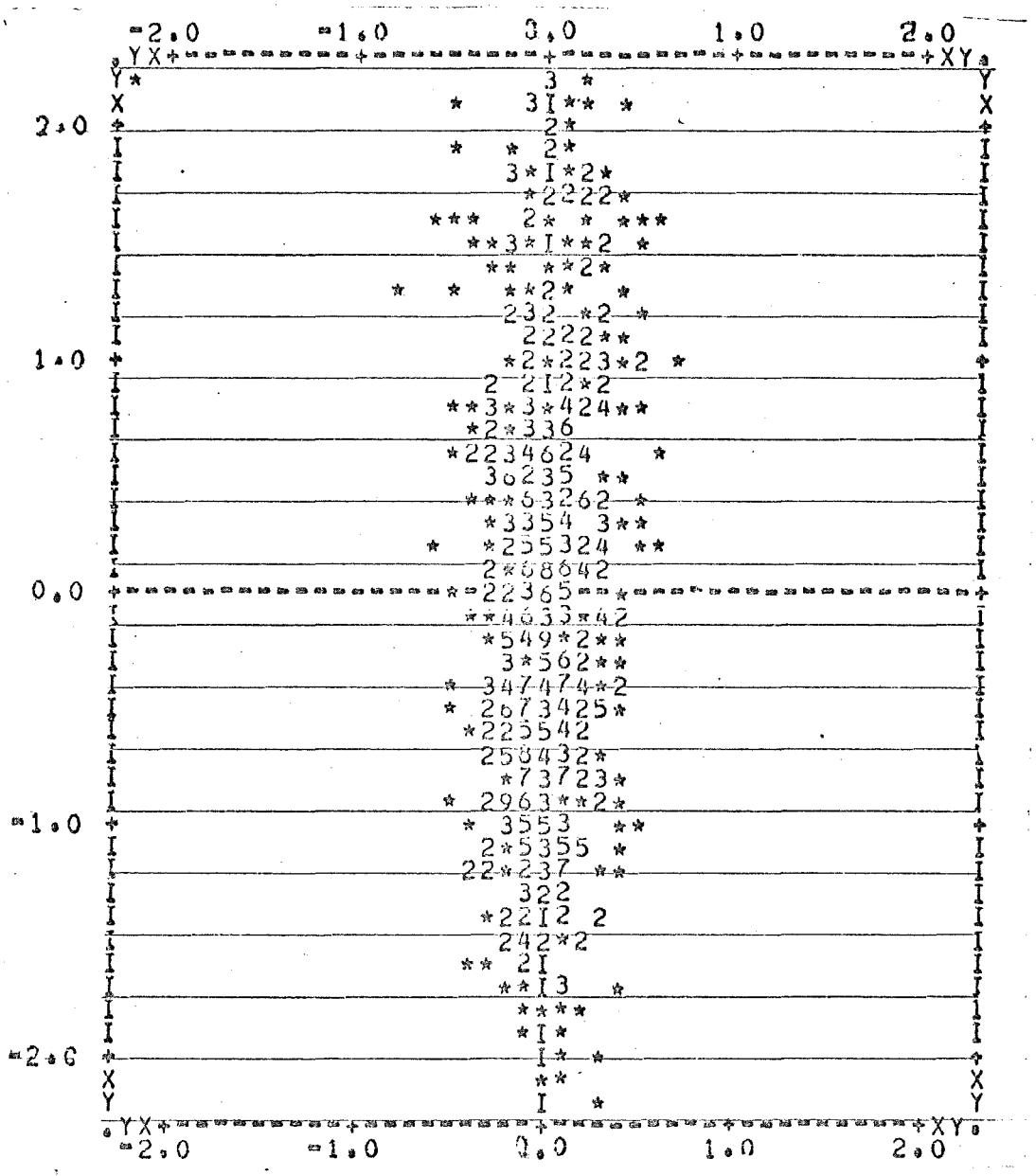
Plot of residuals: School alienation (horizontal) with Conflict over Future-oriented School Values (vertical).



Note: Plot indicates truncated spread.

FIGURE 11

Plot of residuals: School alienation (horizontal) with Conflict over Future-oriented School Values (vertical), subsequent to square root transformation.



Note: No substantial improvement in plot, spread still truncated.

APPENDIX E

The Student Questionnaire

STUDENT QUESTIONNAIRE

WHAT THIS QUESTIONNAIRE IS ABOUT

Lately, many people have been having a fresh look at what schools are for, what they should teach, and how they should be run. We would like to find out how YOU feel about these things - after all, you are the ones who have to go to school, and so we think it's very important that you get a chance to have your say.

WHAT WE WOULD LIKE YOU TO DO

On the following pages we have put down a lot of different ideas about school, and we would like to find out how you feel about them. There are FOUR parts to the questionnaire, and we would like you to answer EACH part This isn't a test and you don't have to put your name on the paper, so you can be quite open about what you really think. No one can find out what you say.

Would you please put your answers either in ink or biro, not pencil. Please do not spend too much time on any one item.

THANK YOU FOR HELPING

INFORMATION

Before you start on the questionnaire, would you please answer the following questions about yourself. Your answers will be kept strictly confidential - no one will know what you've said.

Please write in:

1. Your sex _____ (male or female)

2. Your age _____ years _____ months

3. Do you belong to any SCHOOL clubs, teams, or groups? _____(Yes/No)
   If so, what are they?
   _____
   _____

4. Do you belong to any clubs, teams, groups, or organizations OUTSIDE SCHOOL? _____ (Yes or No)
   If so, what are they?
   _____
   _____

5. If nothing stopped you, what sort of job would you really like to do?
   _____

6. What sort of job do you think you will probably end up doing?
   _____

7. Please tick the one which is true for you:

   ☐ I am living with my mother and father
   ☐ I am living with my mother only
   ☐ I am living with my father only
   ☐ I do not live with either of my parents

8. If your father is living at home, and is working, please describe his work:
   _____
   _____

9. If your mother is living at home, and is working, please describe her work:
   _____
   _____

NOW GO ON WITH THE REST OF THE QUESTIONNAIRE

PART I

The following statements describe different sorts of feelings about school. Please show how well each of these statements describes your feelings about your school. Please don't think about whether the statements are "good" or "bad" - just read each one and answer in terms of how well it describes your feelings.

HOW TO DO IT

(1) READ each statement carefully.

(2) THINK about how well the statement says how you feel about school.

(3) DECIDE whether you strongly agree, agree, disagree, or strongly disagree with the statement.

(4) Then put a TICK in the appropriate box. If you make a mistake or want to change your answer, turn your tick into a cross (like this ✗) and tick another box.

We've done the first one for you:

	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
A1. Sometimes I have quite good fun at school.		✓			
A2. In order to get ahead in this school I am almost forced to break school rules.					
A3. I just don't see how completing my high school education in this school will guarantee me the ability to provide myself and my family with all the things we will need.					
A4. Generally speaking, I think that my participation in school athletic activities is (or would be) a waste of my time.					
A5. There is little I can do about the way this school is run.					
A6. Cheating is the only way for me to get what I want out of school.					
A7. The best way for me to get ahead in this school is for me to be honest in all my dealings with the staff.					
A8. There is not much chance that I can do anything to make this school a better place in which to learn.					

CONTINUE ON NEXT PAGE

	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
A9. I will probably have to break school rules if I am to obtain some of the highest awards this school offers.					
A10. I just can't see any relation between my school experiences and my becoming a better citizen.					
A11. For me to be really successful in this school I would have to use methods that are illegal as far as teachers are concerned.					
A12. I think that school is valuable when it comes to making decisions about life's problems.					
A13. I really enjoy my work at school.					
A14. In order to get ahead in school it is necessary to do some things of which school authorities do not approve.					
A15. If I had the chance to do things over again, I would be in school this year because I really enjoy it.					
A16. School is not much use in helping me figure out what to do with my life.					
A17. I, as an individual student, can't do anything about what goes on in this school.					
A18. I think that what is taught in this school is mostly useless in today's world.					
A19. I would have to do things which were not really honest in order to get to the top in this school.					
A20. I think that the activities (apart from classwork) that are offered in this school are really useful.					
A21. The principal of this school has more power than the students.					

CONTINUE ON NEXT PAGE

	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
A22. My teachers generally do what they want to do, no matter what I say.					
A23. The subjects available in this school are extremely valuable to me.					
A24. For me to be successful in this school requires the use of absolutely any means I can devise - whether or not such means are "approved" by teachers.					
A25. What happens in this school happens no matter what I do. It is like the weather; there is nothing I can do about it.					
A26. I would prefer to be out working than to remain in school.					
A27. My school courses are useful in helping me decide what I want to do with my life.					
28. I have better things to do with my time than fool around in school clubs.					
29. I don't understand how the attitudes and habits which I learn in school will help me to lead a better life.					
30. My school studies help me make predictions about the kind of world in which I will live in the future.					
31. For me, participating in inter-school competitions (such as basketball, debating, chess etc.) is worthwhile.					
32. School is like a hobby to me.					
33. Most of the time I have to force myself to go to school.					
34. School is usually interesting enough to keep me from getting bored.					

CONTINUE ON NEXT PAGE

	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
A35. I feel fairly well satisfied with school.					
A36. I definitely dislike school.					
A37. I feel that I am happier in school than most other pupils.					
A38. Most days I am enthusiastic about school.					
A39. Each day of school seems like it will never end.					
A40. I am disappointed that I have to attend this school.					

PART II

The following statements describe a variety of school characteristics. Please show how well each of these statements describes what it is like at <u>your</u> school. Please don't think about whether the statements are "good" or "bad" - just read each one and answer in terms of how well it describes what it is like at <u>your</u> school.

<u>HOW TO DO IT</u>

(1) READ each statement carefully.

(2) THINK about how well the statement describes what it is like at your school.

(3) DECIDE whether you strongly agree, agree, disagree, or strongly disagree with the statement as a description of what it is like at your school.

(4) Then put a TICK in the appropriate box. If you make a mistake, or want to change your answer, turn your tick into a cross and tick another box.

We've done the first one for you:

	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
B1. The principal has a higher position than I have in this school.	✓				
B2. I often get orders from "higher up".					
B3. Teachers and prefects often tell me what to do.					
B4. I'm supposed to obey school rules about having to come to school regularly.					

CONTINUE ON NEXT PAGE

	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
B5. I have got this far through school because of my ability.					
B6. When it all boils down, the principal of this school has a lot of authority over me.					
B7. Officials in this school act like little gods always ordering me about and telling me what to do.					
B8. I'm supposed to follow a school rule about not leaving the school grounds during school hours.					
B9. I am expected to show proper respect to the school authorities here.					
B10. If I wanted to, I could choose from a large number of different subjects in this school.					
B11. I can talk to teachers easily here - just as if they were one of us.					
B12. In this school I can choose among a wide variety of different subjects rather than just concentrating on one small area.					
B13. This school has rules which cover almost everything I do.					
B14. Success in this school doesn't depend on whether the teachers like me or not, but on how well I do my work.					
B15. Most schools have rules which students are meant to follow.					
B16. I am supposed to obey school rules about not smoking while I am in the school grounds.					
B17. If something that I want to do is different from what the teachers want me to do, they have the final say about what will be done.					
B18. I can't do much without asking someone "higher up".					

CONTINUE ON NEXT PAGE

	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
B19. Teachers here can't decide for themselves about many things at school because they all have certain things they've got to do.					
B20. I'm meant to obey school rules which state that I may not leave the classroom - even to go to the toilet - unless I have permission to do so.					
B21. I often get told what to do by someone higher up in the school system.					
B22. I can't make many decisions of my own about what I want to do because the school authorities must approve everything first.					
B23. Supposing I wanted to stay on at school, then whether I could get into the fifth form or not would depend on how well I do my work.					
B24. In most classes, I am allowed to sit where I want to in the classroom.					
B25. I'm supposed to obey a lot of rules about my personal behaviour in and around school.					
B26. In most of my classes we have a lot of rules about how school work is to be set out.					
B27. I find it difficult to get on really friendly terms with the teachers here.					
B28. In the end, school authorities have a lot of control over me.					
B29. I'm supposed to strictly obey all the school rules about arriving on time at school and at classes.					
B30. I'm supposed to obey school rules regarding my conduct at school.					
B31. My chances of doing well in this school depend almost entirely on my ability.					
B32. There are many people higher up in this school who can give me orders and they often do.					

CONTINUE ON NEXT PAGE

PART III

Listed below are pairs of statements about things you may or may not like to do. What we would like you to show us is this: if you had to make a choice between the two things, which would you prefer to do most?

HOW TO DO IT

(1) THINK about EACH PAIR of statements carefully.
(2) DECIDE which ONE of the two things in the pair you would most like to do, and put a 1 in the box beside that one. Then put a 2 in the box beside the other member of the pair.

Do this for each pair of statements. Please do not miss out any of them.

We've done the first one for you:

1. [2] (i) I like to read about the lives of famous people.
   [1] (ii) I like to be able to come and go as I want to.

2. [ ] (i) I like to be loyal to my friends.
   [ ] (ii) I like to do my best in whatever I do.

3. [ ] (i) I like to show my friends that I really do like them.
   [ ] (ii) I like to see the results of my work.

4. [ ] (i) I like to have proof that I have done a good job.
   [ ] (ii) I would like other people to come to me for help.

5. [ ] (i) I would like to prove to others that I can do better than they think I can.
   [ ] (ii) I like to go out of my way to help other people.

6. [ ] (i) I like to feel free to do what I want to do.
   [ ] (ii) I like to keep my desk tidy at all times.

7. [ ] (i) I like to give my own time to help others.
   [ ] (ii) I would like to achieve something really outstanding.

8. [ ] (i) I like to feel I have done a good day's work.
   [ ] (ii) I like to belong to groups where the members are friendly with one another.

9. [ ] (i) I like to be generous with my friends.
   [ ] (ii) I would like to be a known expert in some job or profession.

10. [ ] (i) I would like to be able to do problems or tasks that other people think are quite hard.
    [ ] (ii) I would like other people to feel that they could turn to me for sympathy.

11. [ ] (i) I would like to have really got somewhere by the time I am 26 years old.
    [ ] (ii) I would like other people to come to me for advice.

12. [ ] (i) I like to be really 'in' with my friends.
    [ ] (ii) I like to be able to say I have done a difficult job well.

CONTINUE ON NEXT PAGE

PART IV

Many different ideas about school are put down in the following statements. Please show how you feel about these ideas, and whether or not you think they are happening in your school.

HOW TO DO IT

There are two parts to each item.

(1) First read each statement and decide how you feel about it.
If you think it is a really good idea, then tick the box marked VERY GOOD.
If you think it is quite a good idea, then tick the box marked GOOD.
If you think it's not a bad idea, or just so-so, then tick the box marked AVERAGE.
If you think it's not a good idea, then tick the box marked BAD.
If you think it's a really bad idea, then tick the box marked VERY BAD.

(2) Then decide how well the statement describes what actually happens at your school.
If what is said in the statement is the same as what happens at your school, then tick the box marked EXACTLY SAME.
If what is said in the statement is quite like what happens at your school, then tick the box marked QUITE SIMILAR.
If what is said in the statement is only a bit like what happens at your school, then tick the box marked A BIT LIKE IT.
If what is said in the statement is quite different from what happens at your school, then tick the box marked RATHER DIFFERENT.
If what is said in the statement is really different from what happens at your school, then tick the box marked VERY DIFFERENT.

If you make a mistake, or want to change your answer, turn your tick into a cross and tick another box.

We've done the first one for you:

E1. The main purpose of school should be to teach students how to cope with all sorts of situations.

	VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD
A good idea or not?			✓		
Is your school like this?	EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT
					✓

E2. It's the job of the school to show students how to handle problems.

	VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD
A good idea or not?					
Is your school like this?	EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

CONTINUE ON NEXT PAGE

3. One thing that schools should do is teach students how to study efficiently.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

4. Schools should exist to get students ready for a job.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

5. It's important for schools to give students a chance to meet people.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

6. One thing that schools should do is make students feel at ease with members of the opposite sex.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

7. One thing that schools must do is help the student understand himself as a person.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

8. One of the main purposes of school should be to help students choose jobs that they will like.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

CONTINUE ON NEXT PAGE

E9. Something that schools must do is encourage students to have confidence in themselves.

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

A good idea or not?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

Is your school like this?

E10. There should be school on Saturdays and Sundays.

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

A good idea or not?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

Is your school like this?

E11. One thing that schools should do is try to make students like learning.

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

A good idea or not?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

Is your school like this?

E12. Schools should exist to help students get qualifications (e.g. School Certificate).

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

A good idea or not?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

Is your school like this?

13. It's important for schools to encourage students to care about other people.

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

A good idea or not?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

Is your school like this?

14. Something that schools must do is help students cope with life.

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

A good idea or not?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

Is your school like this?

CONTINUE ON NEXT PAGE

15. One thing that schools must do is help students pass exams.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

16. One thing that schools ought to do is teach students how important it is to help one another.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

17. One thing that schools ought to do is challenge students to do things they haven't tried before.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

8. It's the job of the school to show students how to decide which information is important and which isn't.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

9. The purpose of schools should be to help prepare students for jobs.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

). One thing that schools should do is teach students how to work in a group.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

CONTINUE ON NEXT PAGE

E21. It's important for schools to teach students how to mix with people.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E22. One thing that schools ought to do is give students new interests.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E23. It's important for schools to teach subjects which could be useful to students in their jobs later on.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E24. Something that schools must do is tell students about the different sorts of jobs they could do when they leave school.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E25. It's important for schools to encourage students to stick up for their friends.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E26. One thing that schools must do is treat students like young adults, not like little children.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

CONTINUE ON NEXT PAGE

E27. One thing that schools ought to do is make schoolwork interesting.

A good idea or not?	VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD
Is your school like this?	EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E28. Schools should abolish all exams.

A good idea or not?	VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD
Is your school like this?	EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E29. One thing that schools should do is help students find out what they're good at.

A good idea or not?	VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD
Is your school like this?	EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E30. Something that schools ought to do is make students a lot more interested in current affairs.

A good idea or not?	VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD
Is your school like this?	EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E31. It's important for schools to encourage students to become more independent.

A good idea or not?	VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD
Is your school like this?	EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E32. Something that schools must do is teach students how to tackle real life problems.

A good idea or not?	VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD
Is your school like this?	EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

CONTINUE ON NEXT PAGE

E33. The purpose of school should be to make students curious about lots of different subjects.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E34. One of the main purposes of school should be to teach students the difference between right and wrong.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E35. It's the job of the school to teach students a lot about the different subjects they take.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E36. It's the job of the school to teach students to respect law and order.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E37. Something that schools must do is teach students how to communicate with one another.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

E38. Something that schools should do is help students develop better memories.

A good idea or not?

VERY GOOD	GOOD	AVERAGE	BAD	VERY BAD

Is your school like this?

EXACTLY SAME	QUITE SIMILAR	A BIT LIKE IT	RATHER DIFFERENT	VERY DIFFERENT

THAT'S THE LOT. THANKS VERY MUCH FOR YOUR HELP